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USSR Report

AGRICULTURE

No. 1375

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MAJOR CROP PROGRESS AND WEATHER REPORTING

KIRGHIZ AGRICULTURAL PROGRESS DISCUSSED

Frunze SOVETSKAYA KIRGIZIYA in Russian 10 Oct 82 p 1

[Article by T. Orobayev, deputy minister of agriculture, Kirghiz SSR: "A Course Toward Intensification"]

[Text] Farmers and animal husbandry workers of our republic are greeting their holiday, the All-Union Day of Agricultural Workers, with self-sacrificing labor. Inspired by the decisions of the May (1982) Plenum of the CPSU Central Committee, they are striving to utilize more fully their rich reserves for successfully implementing the country's Food Program.

Autumn crowns the labor year of grain and sugar beet growers, cotton and vegetable growers, and directs them toward laying a basis for next year's harvest. Creatively applying the achievements of scientific and technical progress and advanced practice, our farmers are doing a good deal to improve the structure of the planted areas, to expand the areas planted in the more productive agricultural crops, to utilize organic and mineral fertilizers efficiently, and to protect the fields and orchards from agricultural pests and diseases. Despite the difficult weather conditions and the shortage of water in the sources of irrigation, many farms have raised a good crop this year. Grain growers of Naryn Oblast, for example, are legitimately proud of the grain crops they have threshed. From each irrigated hectare here they obtain an average of 35.8 quintals of wheat, barley and oats. The yield from these crops is even greater on the fields of Kochkorskiy Rayon. The application of fertilizers produces a large additional yield. While under the Ninth Five-Year Plan, the Kochkorskiy workers applied an average of 112 kilograms of active substance to the soil on each hectare and obtained 30.3 quintals of grain, under the Tenth Five-Year Plan they applied 198 kilograms and harvested 41.9 quintals. Among the grain growers of the Chuyskaya valley, the winners of the competition were the kolkhozes and sovkhozes of Kantskiy Rayon who harvested an average of 35.7 quintals of grain from irrigated land.

Corn growers have also worked well. This year they raised a large crop. They obtained 119,000 tons of amber grain from the harvested area--an average of 53.9 quintals. Just as last year, the leaders are the corn growers of Osh Oblast. They exceeded this indicator by almost 10 quintals.

Grain growers of the republic see their primary duty as being to persistently and dynamically increase the production of wheat, barley, oats and especially grain forage crops and other forage grain, and to obtain more products with fewer expenditures of labor and money. The only true path to this is further intensification of agriculture. As a result of utilizing organic and mineral fertilizers alone it is possible to obtain a solid additional yield. This is why most of them are applied during plowing and the planting of winter crops is done with simultaneous application of superphosphate to the rows. It is important for planting and turning over the fallow to be done at the best agrotechnical time, thus creating conditions for increasing the return from each hectare in the third year of the five-year plan.

With the coming of autumn there are more concerns for cotton growers, sugar beet growers, vegetable growers and tobacco growers. It is necessary to harvest the entire crop that has been raised, not to allow losses and to successfully fulfill socialist commitments adopted in honor of the 60th anniversary of the founding of the USSR. It has been decided to harvest a large part of the raw cotton by machines. The flow line and flow line-transhipment method of harvesting the crop is being applied extensively on sugar beet plantations. Comprehensive mechanization is being applied increasingly for raising feed crops and progressive technology is being used for preparing hay, haylage and silage. Feed workers worked hard during the month for accumulating feeds in order to obtain forage and provide for the well-being of the livestock during the forthcoming wintering period.

The sources of the achievements lie in the qualitative improvement of the material and technical base for agriculture. Each year there is a larger number of tractors, combines and trucks. The areas of irrigated land are expanding. The energy availability of the kolkhozes and sovkhozes has increased. A unified specialized agrochemical service has been created, which intelligently utilizes chemicals in agriculture.

Public animal husbandry is increasingly being changed over to an industrial basis. New mechanized complexes, farms and poultry farms are being put into operation. Feed production has been separated into an independent branch.

Social problems of rural areas are at the center of attention of party, soviet and agricultural agencies. Construction is being done at rapid rates in rural areas and the cultural and domestic conditions for the life of kolkhoz and sovkhoz workers are improving.

Bringing the material and cultural level of life in the country closer to that in the city contributes to solving the personnel problem. A large army of specialists with higher and secondary qualifications are working on the kolkhozes and sovkhozes.

Relying on skilled personnel and the greater material and technical potential, our agriculture is acquiring ever increasing stability in the rates of its development and can overcome unfavorable consequences of weather conditions with fewer expenditures. Workers of the fields and farms are doing everything possible to successfully implement the country's Food Program.

11772
CSO: 1824/211

MAJOR CROP PROGRESS AND WEATHER REPORTING

CONSEQUENCES OF UNPRECENDENTED SNOWFALL DISCUSSED

Moscow TRUD in Russian 11 Nov 82 p 4

[Article by V. Yurlov (Issyk-Kul Oblast): "The People and the Snow"]

[Text] "Recently TRUD reported at the end of October in this year in Kirghiziya there was an unprecendented snowfall. It destroyed homes and paralyzed transporation. I should like to know more of the details about what happened in Issyk-Kul Oblast."

L. Farkusheva
Spinner at the Osh Textile Combine

Usually when one approaches the city of Cholpon-Ata those two figures standing at the top of a mountain are visible from afar. Not wishing to place themselves at the mercy of the conquerer, the old man and the girl preferred to be transformed into stone--so goes the legend. Today the high group of sculptures is no longer visible--everything has been covered up by a deep layer of snow.

What happened on the shores of Issyk-Kul', this pearl of Kirghiziya where snow, as a rule, is unfamiliar?

On that day there was drizzling rain in many rayons of the oblast. It seemed that no one expected any problem. For on Issyk-Kul' it is usually the case that after the clouds have appeared there is a rapid rain and soon the sky is clear again. But snowflakes began to whirl in the air and then a hurricane suddenly began. As became clear later, as a result of the interaction between the high cold layers of air and the warm evaporation, a powerful cyclone formed. The hurricane ripped the roofs from buildings as if they were sheets of paper. And it stopped as suddenly as it began. And then snow fell --as much in two days as the normal precipitation for a half year! Within an hour after the beginning of the snowfall the trucks that were located between the villages of Semenovka and Tamchi, which have a distance between them of approximately 60 kilometers, were stuck in the snow, whose height by that time had reached 1.5 meters. Soon about 1,500 vehicles accumulated in this section of road, including busses. Later they managed to calculate that the vehicles held approximately 9,000 people, with children among them.

In Issyk-Kulskiy Rayon an emergency staff was created to fight against the elements. All tractors, graders and bulldozers in the rayon were mobilized to clear away the drifts. But, unfortunately, the technical equipment was unable to cope with them. The snow continued to pile up and by the morning of 27 October in the region of the village of Kurskoye it was 253 centimeters deep. The vehicle of the first deputy chairman of the Kirghiz SSR council of ministers, P. M. Khodos, got stuck here. He was in charge of the government commission for fighting against the natural disaster. His car took more than an hour to go about 100 meters, and this was with the help of an army tow truck--servicemen of the Central Asian Military District came to help.

In the enormous snowdrifts in the middle of the road in cars with motors running there were 9,000 people. Residents of nearby villages were concerned about their comfort. The kolkhoz worker E. Shabazbekov gave shelter to 20 people for three days of snowy captivity. The family of A. Sydykov put 18 of them up. The pensioner T. Kochkorov worked continuously for three days. He prepared a thick mutton soup for those who were suffering.

As a result of the natural disaster more than a hundred large flocks of sheep were separated from the central farmsteads. It was not easy to reach them on the snow covered roads. But the bulldozer drivers worked a miracle of bravery. On the third day after the beginning of the snowfall--at the very height of it--the machine operator Aleksandr Myakov made his way through the obstacles of Kabyrga to the camp of the shepherd Sh. Abdrayev and delivered food for the people and feed for the livestock.

Helicopter operators hastened to assist. Eleven whirling machines from Frunze, Alma-Ata and Dushanbe delivered to the area that was inaccessible to other technical equipment everything the shepherds needed. Because of the deep snow cover the helicopters could not land on the ground and had to unload in flight, suspended above the drifts.

"At night during the snowfall my wife and I tried to open the door of the house," says B. Kasymbekov, a shepherd of the Kolkhoz imeni Karl Marks. "Nothing happened--the door was completely blocked by snow. Still we managed to get out of the house. The first thing we did was to hurry to the flock. We dug out an entrance and arranged ventilation. And the snow still had not stopped. The feed was gone. We thought that it would be impossible to get to us within the next week. But, fortunately, we were mistaken. Help came on the third day. A helicopter flew to us and threw down several sacks of food and 40 sacks of feed for the sheep."

Hundreds of people were sent from the cities and central farmsteads of the kolkhozes and sovkhozes to help the shepherds to arrange continuous feeding of the sheep. Construction materials were delivered for sheds that were destroyed. But still not all of the animals could be saved from the disaster--more than 2,000 sheep died under the snow.

The situation has now normalized in the regions of the disaster. True, there are still many snowdrifts. But nobody is afraid of them any more. The people have won the battle with the elements.

11772
CSO: 1824/211

MAJOR CROP PROGRESS AND WEATHER REPORTING

DROUGHT PROCESS, TECHNIQUE FOR COMBATING EFFECTS

Moscow ZEMLYA I VSELENNAYA in Russian No 1, Jan-Feb 83 pp 16-18

/Article by Yu. L. Rauner, doctor of geographic sciences and A.N. Zolotokrylin, candidate of geographic sciences: "Droughts"/

> /Text/ These natural phenomena are difficult to forecast and yet we must combat them by employing a correct agricultural technology in the cultivation of agricultural crops. The USSR food program, adopted during the May (1982) Plenum of the CPSU Central Committee, calls for the implementation of an optimum agricultural technology.

According to estimates by OON /United Nations Organization/ experts, the annual losses caused by natural calamities throughout the world amount to 40 billion dollars. The damage inflicted upon the world production of food products by droughts alone amounts to 15 percent of this sum. The sad and well known Sudan-Sakhel'skaya drought which struck the grasslands of northern Africa during the 1960's and 1970's destroyed hundreds of thousands of human lives. A tremendous number of domestic livestock and wild animals perished and approximately 20,000 square kilometers of land area were turned into a desert following this drought. In some African countries it caused a mass migration of the population.

But droughts occur not only in Africa. In 1972, they struck several of the earth's principal agricultural regions at the same time. The grain harvests decreased substantially and, as a result, the stability of the world's grain prices was disturbed. A question arises: do droughts such as those described bring about climatic changes or, in other words, does the climate become more arid? A discussion of the climatological aspect and the mechanism of the Sudan-Sakhel'skaya drought produced a conclusion: this phenomenon is not all that unusual for a grassland zone, since such events have occurred here twice during the current century.

How Does a Drought Occur?

For a drought to occur, there must be a stable predominance of anticyclone weather over a large area (an anticyclone is usually accompanied by fair weather with some clouds and a reduced amount of precipitation). The soil's surface and the ground layer of air are warmed to an intensive degree by the

sun's rays. Since the relative humidity of this layer decreases sharply, atmospheric drought conditions develop which subsequently, in the presence of insufficient soil moisture, can affect the soil environment of plants thus leading to a general drought.

A reduction in the average monthly amount of precipitation of 20 percent and an increase in the average monthly temperature of more than 1^{o} Centigrade are often accepted as the criteria for an atmospheric drought. There are also other criteria. A hydrothermal coefficient proposed by G.T. Selyaninov is employed extensively in agricultural meteorology. This constitutes a ratio of the total amount of precipitation during the active growing season (when the temperature is higher than 10^{o} Centigrade) to the total amount of air temperatures for the same period. A drought criterion during the period of active vegetation is a reduction in the hydrothermal coefficient to 0.6 in the principal grain regions.

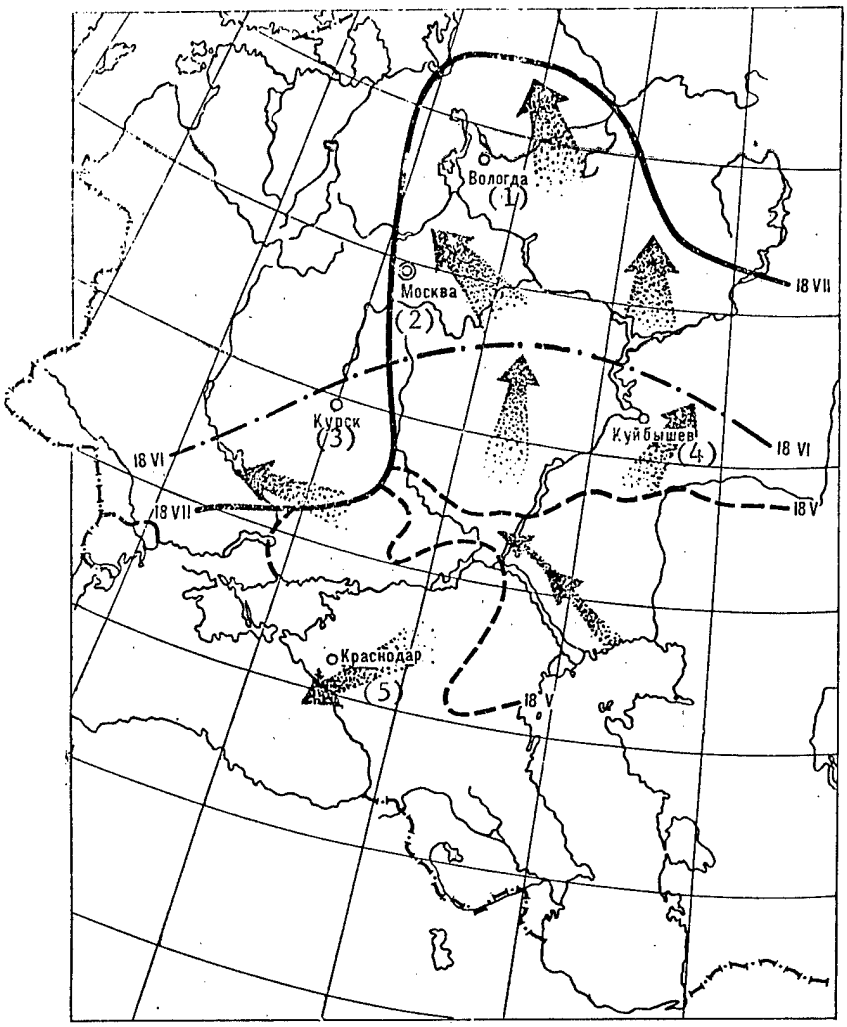
Whether or not anticyclone weather settles in over a vast territory during a particular time of the year will depend upon the overall (planetary) atmospheric circulation. In the moderate latitudes of the northern hemisphere, two extreme types of air currents can be singled out: a west to east (zonal) transfer and air movement along the meridians. If a zonal current prevails, the cyclones during the warm period usually move through northern Europe and damp weather is experienced in the European territory of the USSR, mainly in the nonchernozem zone. At the same time, anticyclone weather predominates in the south, weather which at times produces drought conditions in the southern portion of the grain zone. Thus, experiencing only the zonal current of air, the southern grain regions of the USSR always suffered from drought conditions, whereas in the northern regions of the European part of the country damp conditions with a deficit of warmth predominated.

Actually, the situation is different from the above as a result of the meridional flows of air. They promote a situation wherein cyclones with abundant rainfall predominate in some regions of the moderate zone during the warm period, while in neighboring regions -- anticyclones -- which give rise to arid conditions. For example, anticyclone weather in the European territory of the USSR is usually accompanied by a predominance of cyclones and precipitation in western Europe, western Siberia and northern Kazakhstan. And conversely, when cyclones develop over the European territory of the USSR, anticyclone weather without rainfall predominates in western Siberia and northern Kazakhstan. Thus the meridional air currents tend to correct the situation on the one hand by reducing somewhat the degree of excessive moisture in the north and, on the other -- by providing additional moisture for the principal grain regions.

Since droughts develop in these regions in the case of both zonal and meridional air currents, the years in which droughts do not occur are rather rare. Extensive meteorological observations maintained in our country's grain zone over a period of 90 years revealed that only 18 of these years passed without droughts occurring.

Can Droughts Be Forecast?

At the present time, the theory for overall atmospheric circulation is incapable of explaining all of the changes in planetary air currents. Even



Spread of a drought during the summer of 1972 over the European territory of the USSR. It began in the lower Volga region and thereafter advanced into the middle Volga area. In the middle of the summer it appeared in the north Caucasus, the Crimea and the southern Ukraine and by the end of the summer it had reached to Lakes Ladoga and Onega. The different lines indicate the borders of the areas affected by the drought during the various months

Key:

1. Vologda
2. Moscow
3. Kursk
4. Kuybyshev
5. Krasnodar

a numerical simulation of overall atmospheric circulation, which has become one of the chief approaches employed for studying large-scale atmospheric processes, is still unable to describe in a reliable manner the brief and periodic fluctuations in such currents. And indeed it is precisely these fluctuations which are creating the prolonged climatic irregularities, including droughts. Thus a complete understanding of this physical process

alone and its numerical simulation will make it possible in the future to furnish successful forecasts of droughts.

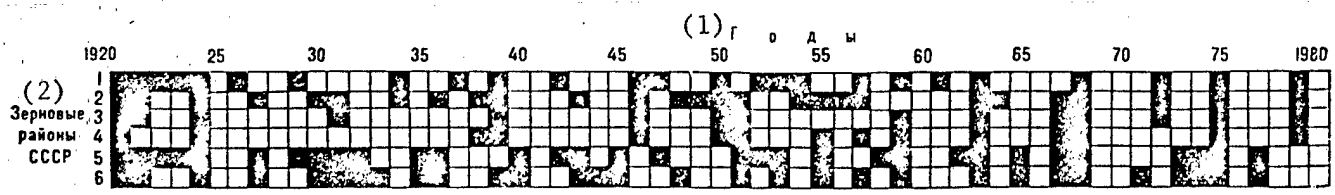
At the present time, attempts are being made from time to time to forecast droughts based upon quasi-periodic fluctuations in the time-sequence of such natural phenomena. Such fluctuations are explained by an association with solar activity, which is cyclical in nature. The value of such drought forecasts is not very great, since the true effect of solar activity on weather and climate is by no means obvious.

Probability forecasts for droughts are the most reliable. In examining the time-sequence for them, one can assume that within a particular interval of time and with a definite probability a drought will occur. The probability of the absence of drought conditions in all of the grain regions of the USSR can be computed and also the probability of several or all of the grain regions of the USSR being seized by drought conditions. The longer the period of study of such droughts, the greater the importance attached to the forecasts.

The droughts are recorded in special catalogs, the use of which makes it possible to draw conclusions concerning the recurrence of these natural calamities and the principles governing their spread. A definite system of drought catalogs exists: first of all, an initial catalog for a particular region; thereafter, a catalog for severe droughts which encompasses two or several regions or an entire grain zone of the country and finally a catalog for non-drought years in which a record is kept of years in which droughts did not occur in any of the grain regions. At the Institute of Geography of the USSR Academy of Sciences, a study is being carried out on droughts in the grain zone (over the past 90 years) based upon the hydrothermal coefficient, supplemented on a continuing basis with data on the cropping power of the grain crops. For some regions of the European part of the country, based upon indirect indications (written sources containing information on droughts, data on lake deposits and so forth), information has also been developed on the alternation of dry and wet years over the past several milleniums.

The catalogs are used for determining the recurrence of droughts on a given territory and the area of their spread. In the grain portion of the USSR, an average of three droughts are observed during the course of a decade on an area equal to two grain regions out of six. This figure serves as the climatological norm for the grain zone. More favorable moisture conditions are found in two grain regions (central chernozem and the north Caucasus), where over a period of 10 years an average of only two droughts has occurred. In the remaining grain regions (Ukraine, Volga, western Siberia and the north Caucasus), the average number of droughts is 3-4. The probability of recurring droughts increases in these regions. Roughly once every 10-11 years the entire grain zone of the USSR or a large portion of it is subjected to drought conditions.

Fortunately, droughts which in the northern hemisphere encompass simultaneously all of the non-tropical and non-monsoon grain regions occur extremely rarely -- roughly once every 100 years. Thus the world production of grain is rather stable.



Extract from a drought catalog of the Institute of Geography of the USSR Academy of Sciences for the country's grain zone. Designations for regions: 1 -- the Ukraine, 2 -- the Volga region, 3 -- central chernozem zone, 4 -- north Caucasus, 5 -- western Siberia, 6 -- northern Kazakhstan. The years in which droughts occurred are shown as black squares. The average recurrence of droughts over the past 60 years is three droughts during a decade in two regions out of six.

Key:

1. Years
2. Grain regions of the USSR

According to computations, during the next decade the anthropogenic effect on the earth's atmosphere (mainly as a result of CO_2 emissions) may bring about an increase in the average surface air temperature in the northern hemisphere (ZEMLYA I VSELENNAYA, 1981, No. 6, p 19. -- editorial board). In the opinion of some scientists, this will increase the number of droughts in the principal grain regions. However, a comparison of the anomalies of global temperature against the recurrence of droughts in the grain regions of the U.S.A., the USSR and Western Europe over the past 90 years reveals that no link exists between a rise in global temperatures and an increase in the frequency of droughts occurring in the U.S.A. and western Europe.

Combating Droughts

Droughts create serious difficulties for agriculture. For combating them, we employ in our country a complex of agrotechnical, land reclamation and agronomic measures (retention of moisture in the soil, maintenance of correct crop rotation plans with clean fallow, introduction of drought resistant crops). All of these measures constitute only a portion of the annual agricultural technology, which appears as a vast and complicated system of means and methods for the cultivation of grain crops. The annual agricultural technology defines the methods for controlling the water and temperature regime of the root-inhabiting and arable layer of soil (included here are the various types of plowing, harvesting and sowing periods); methods for raising fertility or improving the mineral nourishment of plants; the totality of breeding factors (use of various varieties having raised cropping powers and "responsiveness" to the agrotechnical methods and varieties which are resistant to diseases and to changing weather conditions); a set of agricultural implements and machines and harvesting equipment for operations under drought and excessive moisture conditions. All of these factors vary for the different agricultural crops and for regions having diverse soil-climatic conditions; moreover, they should be employed taking into account the specific peculiarities for each year.

If from the annual fluctuations in grain crop cropping power on the territory of the USSR a component is singled out which is dependent only upon the

climatic conditions, then the remaining portion will reveal how successfully or unsuccessfully the agricultural technology was employed for the entire grain zone of the USSR. Analysis reveals that the crop losses caused by the use of a less than optimum agricultural technology for the cultivation and harvesting of grain crops are still quite high. A requirement exists for planning an optimum annual agricultural technology with full consideration being given to the meteorological conditions from the standpoint of the country's overall grain zone. This will lower crop losses during years marked by unfavorable weather conditions and it will raise the cropping power during the remaining years.

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MAJOR CROP AND WEATHER REPORTING

BRIEFS

HARSH ELEMENTS--Frunze--As was already reported in our newspaper, on the night of 26 October in Issyk-Kulskiy Rayon an unprecendented snowfall began. It was accompanied by a cold north wind. When the residents of the coast from the city of Rybach'yy to the village of Anan'yevo woke up in the morning they could not leave their houses. The amount of snow that had fallen in 24 hours was equal to the norm for four months. In individual places it was 1.5 meters deep. Abundant snowfall continued in the region of Cholpon-Ata for 42 hours. A government commission was created to fight against the consequences of the natural disaster. Dozens of motor vehicles stalled along with way and shepherds with flocks of sheep were cut off from their farms. The situation became critical. The Issy-Kulskiy party raykom and rayispolkom immediately created a staff to fight against the consequences of the natural disaster. Powerful technical equipment began to move from Przheval'sk in the direction of Cholpon-Ata. But even the powerful graders and bulldozers were sometimes unable to handle the snow. The entire republic extended a helping hand to the Issy-Kul' residents. Skiers established communications with shepherds who were cut off from the rest of the land. Helicopters flew in from Frunze with groceries and feeds. According to predictions of weather forecasters, today and tomorrow dry weather is expected in the region of Cholpon-Ata. [Excerpts] [Frunze SOVETSKAYA KIRGIZIYA in Russian 31 Oct 82 p 1] 11772

AVIATION TOPDRESSING--Osh--Aircraft from agricultural aviation began top dressing winter crops on the fields of Southern Kirghiziya. Nitrogen fertilizers will be applied to an area of 94,000 hectares. The republic's aviators have resolved to complete all work on the winter fields in reduced time periods, within two weeks. [Text] [Moscow GUDOK in Russian 10 Feb 83 p 1] 11772

KIRGHIZ SNOWFALL--Issyk-Kul' Oblast--For two days on the streets of the health resort city of Cholpon-Ata in Issyk-Kul' Oblast snow banks grew to a height of 1.5 meters. And in the Tyan-Shan' foothills the depth of the snow cover reached 2 meters. Under the weight of the snow the roofs of huts caved in and in some places even more significant harm was caused to buildings. What happened? In the words of the chief of the division for weather forecasting, L. Chekicheva, at an altitude of 5 and a half kilometers there was an interaction between the cold sphere and the evaporation from the warm lake Issyk-Kul'. As a result of this heavy clouds formed and an unprecendented snowfall began. This was a unique phenomenon for the coast of Issyk-Kul'. Suffice it

to say that in two days 128 millimeters of precipitation fell--the norm for a half a year. The republic created a staff to handle the consequences of the disaster. [Text] [Moscow TRUD in Russian 30 Oct 82 p 4] 11772

KIRGHIZ IRRIGATION--Frunze--The rivers of Kirghiziya are working continuously on the crop. Having completed the growing period irrigation of the fields, the farmers of the republic began moisture retention irrigation. The water is being applied to areas planted in perennial grasses, orchards and land intended for spring plowing. This agricultural device, which will have to carried out on almost 500,000 hectares, will make it possible to increase the productivity of agricultural crops by 15-20 percent. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 29 Oct 82 p 2] 11772

MORE RESERVES--Reserves are now being actively sought in all areas of agricultural production. Each working day is marked by the mobilization of all forces, knowledge and experience for unconditional fulfillment of plans and socialist commitments of the anniversary year. Special hopes are placed on agricultural workers and all those who are now engaged in practical implementation of the country's Food Program. Under exceptionally difficult weather conditions they have to work with redoubled energy. Because of the dry spring many areas planted not only in grain crops, but also in other crops and natural pasture lands sustained serious harm. And it is necessary to fight to the end against the consequences of the lack of water and drought and to counteract this with high organization, self-sacrificing labor, general concern and a master's attitude toward obtaining a maximum yield from each hectare. It is also important to preserve all of it. [Text] [Frunze SEL'SKOYE KHOZYAYSTVO KIRGIZII in Russian No 9, Sep 82] 11772

DEFYING THE ELEMENTS--The Pobeda Kolkhoz in Leninpol'skiy Rayon is famous for its large yields of grain. And this year with its small amount of precipitation did not stop the grain growers. They counteracted the caprices of the weather with a profound knowledge of agrotechnology and high organization, especially during irrigations when each liter of water was accounted for. The results gratified the grain growers. They obtained an average of more than 40 quintals of grain per hectare. As in previous years the team of the experienced grain grower Otumbay Imbetaliyev distinguished itself. It harvested 56 quintals of grain from each of 46 hectares. This is the largest yield of grain crops in the rayon. [Text] [Frunze SEL'SKOYE KHOZYAYSTVO KIRGIZII in Russian No 12, Dec 82 p 26] 11772

WINTER WEATHER--Chuyskiy Rayon--Winter was capricious this year. There were abundant snowfalls and frosts that were fairly severe for our locality, which alternated with thaws. Such rapid and, the main thing, unexpected changes of the moods of Mother Winter pleased very few, since almost every day it was necessary to adapt to the weather. Agricultural workers were especially dissatisfied. [Excerpts] [Frunze SOVETSKAYA KIRGIZIYA in Russian 24 Dec 82 p 1] 11772

SPIKE CROP HARVEST--Tyupskiy Rayon--Grain growers of Tyupskiy Rayon are increasing the rates of harvesting of spike crops. Unusually clear and fine days came to the Issyk-Kul' at the beginning of September. The mercury in the thermometer frequently rose to 25-27 degrees. Because of the shortage of water in the spring and summer, it was difficult for the Tyupskiy farmers, and it was not easy after that either when at the very height of harvesting of spike crops torrential rains came down. Because of this the farms had to delay the harvesting of grain crops for almost two weeks. [Excerpts] [Frunze SOVETSKAYA KIRGIZIYA in Russian 10 Sep p 1] 11772

SEVERE FROST--Frunze--Farmers of mountainous Kirghiziya met with a severe early frost. Workers of the kolkhozes and sovkhozes of Naryn Oblast began to form an icy coating on the fields. The water from the unfrozen rivers was poured onto the areas planted in perennial grasses, the plowed areas and the gardens where it will be "preserved" until spring. Plowed land of the Chuyskaya and Talasskaya valleys and also the Issyk-Kul' area will also be covered with ice. This agricultural device, which produces an additional yield of up to 15 percent under the conditions of mountain field work, is to be conducted on an area of 800,000 hectares. [Text] [Moscow GUDOK in Russian 10 Feb 82 p 1] 11772

CSO: 1824/211

LIVESTOCK FEED PROCUREMENT

IMPLEMENTATION OF NEW NORMS ASKED TO RAISE FEED OUTPUT

Moscow SEL'SKAYA ZHIZN' in Russian 19 Jan 83 p 1

[Article: "Increasing the Return From Feeds"]

[Text] The November Plenum of the CPSU Central Committee especially emphasized the need to achieve efficient utilization of material resources and to economize on them. "Now economy and a thrifty attitude toward the public wealth," said Yu. V. Andropov in his speech at the plenum, "is a question of the feasibility of our plans." With respect to animal husbandry this means primarily an economical and thrifty attitude toward forage supplies. Expenditures on feed production comprise a large part of the production cost of milk, meat, eggs and wool. And by efficiently utilizing hay and haylage and increasing the return from each kilogram of silage and concentrates, animal husbandry workers solve two most important problems at the same time: they increase the production of farm products and reduce their production cost.

In advanced practice there are many examples of skillful expenditure of feeds and achievement of large returns from them in farm products. Thus the Petrovskiy Sovkhoz and many other farms of Leningrad Oblast expend little more than 100 feed units per 1 quintal of milk. The Pashinskiy Sovkhoz in Novosibirsk Oblast, having skillfully arranged the fattening of large cattle, reduced expenditures of forage per quintal of weight gain to 740 feed units. Excellent results have been achieved by leading hog raisers of Belorussia: the animals raised here from intrabreed types of hogs consume only 3.6 feed units per kilogram of weight gain.

The experience of such leading farms is becoming the property of an ever increasing number of kolkhozes and sovkhozes as well as entire rayons, oblasts and republics. Thus in the Estonian SSR as a whole, 105 feed units are expended on the production of one quintal of milk. Expenditures of feeds per one quintal of weight gain of large horned cattle on the farms of Arkhangelsk Oblast do not exceed 860 feed units. And on the kolkhozes and sovkhozes of Chelyabinsk Oblast the expenditure of feeds per quintal of weight gain of hogs has decreased to 620 feed units. Forage is used skillfully by workers of the dairy farms of the Karelian ASSR and the Komi ASSR and Murmansk and Vladimir oblasts; this is also true of meat cattle raisers of the Udmurt and Yakutsk autonomous republics and Vologda and Ivanovo autonomous oblasts and hog growers of Khabarovsk Kray and Kalenin, Moscow, Yaroslav, Gorkiy and Omsk oblasts.

Unfortunately, there are still frequent cases where the forage expended on the farms is poorly paid for in products. Feed expenditures per quintal of milk are large in Stavropol Kray and the Tuva ASSR, and Astrakhan and Chita oblasts. Almost 2,000 feed units per quintal of beef are expended in Maritime Kray and the Kalmyk ASSR. Feed expenditures on fattening hogs exceed the norms 3-4-fold in the Mordovian ASSR and Orlov and Rostov oblasts.

During these winter days it is important first of all to create conditions for storing and utilizing feeds so that not a single kilogram is unused. Specialists of the kolkhozes and sovkhozes, the farms' deputy managers for feed production, and the heads of forage yards must immediately check all stacks and ricks and silage and haylage storehouses, attentively keep track of the condition of the covering of these storage facilities and strictly observe the rules for removing feed.

The kolkhozes and sovkhozes have a large arsenal of means for improving the quality of coarse feeds. These include the use of powdered and granulated feed mixtures and various methods of heat and alkaline processing with which the nutritional value, for example, of straw increases 1.5-2-fold, from 0.2 to 0.5 feed units per kilogram. Scientists have calculated that the processing of each ton of straw makes it possible to save 1.5 quintals of concentrates or 3 quintals of good hay. These devices should be introduced everywhere, primarily those that produce the greatest effect--hydrobarothermic processing, which was proposed by Leningrad scientists, and the ferment-yeast method, which was developed by workers of the Timiryazev agricultural academy.

Increasing the return from feeds is one of the major tasks of zootechnicians. Unfortunately, in recent years, blaming the shortage of forage, many specialists have stopped normed feeding of animals. There is really no need to say that such a practice sharply deteriorates the utilization of feeds and causes a great overexpenditure of them. It is necessary to introduce everywhere a system of scientifically substantiated normed feeding of cattle and poultry.

Soviet scientists have developed new norms for feeding whose correct application appreciably increases the productivity of the animals. Thus the introduction of detailed norms for feeding dairy cattle makes it possible to obtain an additional 230 tons of milk from every 1,000 cows. And the new norms for feeding hogs provided for obtaining 862 grams, and during the last 45 days of fattening, 1,040 grams of weight gain per day. Moreover a total of only 3.2 kilograms of mixed feeds were spent per kilogram of weight gain. It is necessary to introduce these norms more rapidly and persistently into extensive zootechnical practice.

Workers of the breeding service should also be involved in solving this problem. It is known that the return on feed with products depends on the quality not only of the feeds, but of the animals themselves and their heredity. Even with one and the same breed one encounters animals that are capable of assimilating forage more efficiently. Having arranged accounting for this indicator and by selecting the necessary type of animals for breeding, it is

possible to achieve fairly good results. Scientists of many institutes are now working on isolating animals that are capable of producing products with reduced feed expenditures. As calculations show, the introduction into production of new, economical types of animals will make it possible to save 450 feed units on each ton of milk and 3,000 feed units on each ton of pork. From this standpoint, we should make more extensive use of such an economical breed of dairy cattle as the Red Steppe and also specialized meat breeds of large horned cattle for producing beef and breeds of hogs of the meat type for producing pork.

Improving the return from feeds and utilizing them better are a reliable path to strengthening the economy of animal husbandry, increasing the profitability of the branch and increasing the production of milk and meat with reduced forage expenditures. To put this reserve to work is an important task of the day.

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LIVESTOCK FEED PROCUREMENT

METHODS FOR IMPROVING MEADOWLANDS, PASTURE, HAYING AREAS

Moscow SEL'SKAYA ZHIZN' in Russian 3 Feb 82 p 2

/Article by N. Andreyev, academician at VASKhNIL and USSR state prize laureate: "Attention For the Meadows"/

> /Text/ Our natural haying and pasture lands occupy five times more area than all of the forage crops grown on arable lands. These same lands furnish several times less feed. The Politburo of the CPSU Central Committee recently approved proposals by the USSR Council of Ministers calling for measures aimed at raising the productivity of natural haying and pasture lands. A considerable increase is called for in the procurements of coarse and succulent pasture feed. Towards this end, the reclamation of natural feed lands must be expanded, the logistical base of the meadow and pasture economy strengthened and a number of other measures carried out. Methods for improving the meadows and haying lands are discussed in this article by N.G. Andreyev, one of the country's well known meadow experts.

Certainly, it comes as no surprise that success in animal husbandry is dependent mainly upon the availability of feed. And the solving of one of the most important tasks of the food program -- increasing the production of animal husbandry products -- can be achieved only in the presence of a strong and stable feed base.

But how can such a base be created? Recently the Politburo of the CPSU Central Committee approved proposals by the USSR Council of Ministers calling for measures aimed at improving the productivity of the natural haying and pasture lands. Based upon the animal husbandry output production volumes set forth in the food program, an increase is called for in the procurements of coarse and succulent pasture feed.

During the current five-year plan, as is known, an increase must be obtained on the order of 100 million tons of feed units, thus raising the production of these units to one half billion tons. It is recalled that during the years of the 10th Five-Year Plan feed production increased by 38 million tons (in feed units). A simple comparison of these figures provides a clear appreciation of

the scales and complexity of the task. All reserves must be placed in operation if this task is to be solved.

The largest such reserve -- the natural haying and pasture lands. The fertile lands on the floodplains of rivers and streams, the slopes of ravines and mountains, various types of unsuitable lands and pastures in semi-desert and desert regions. All of these lands, for one reason or another, are unsuitable for plowing. When they are all added together, they constitute a tremendous area. It exceeds by a factor of five the arable land area occupied by forage crops, but owing to a low cropping power of the grass stands it furnishes only one third of the feed.

The party and government are calling upon us at the present time to achieve economies and thrift in these matters and to wage a campaign against mismanagement and waste. And how many farms are there where unfortunately they merely utter the correct words regarding the rational use of each hectare of land but do very little aimed at reviving meadows which have deteriorated. Or even worse -- at times considerable resources are invested in improving natural feed lands only to be forgotten later; they are not tended properly and, as a result, they once again decline in their productivity. Is this not mismanagement or waste?

But in those areas where the words are followed by action, the full potential of the haying and pasture lands is realized. Such lands become a source for cheap and nutritious feed. Thus irrigated cultivated pastures were established and used successfully at the sovkhozes Zarya Kommunizma, Sergiyevskiy, Runovskiy and Novoselki, at the kolkhozes Borets and Leninskiy Luch in the Moscow region and at many leading farms in all zones throughout the country. Over the past several years, each such hectare of land, regardless of the weather conditions, has been furnishing 5,700 feed units at the Novoselki Sovkhoz and the Borets Kolkhoz, 6,350 at the Leninskiy Luch Kolkhoz and 7,670 feed units at the Put' K Kommunizmu Kolkhoz. Moreover, the production cost for a feed unit at these farms does not exceed 2.4-3.8 kopecks. The high productivity of the cultivated pastures is making it possible not only to maintain large dairy herds on them during the summer but also to lay away large quantities of hay, haylage and grass meal for use during the winter.

At the present time, there are no shortcomings in the recommendations for improving the natural feed lands in a majority of regions throughout the country. The scientists have developed detailed methods for both a superficial and radical transformation of meadows which have deteriorated. There is no need for discussing them here in detail. But I would like to mention some of the more important aspects.

For the formation of cultivated meadow and pasture grass stands and in addition to cereal grasses, more extensive use must be made of leguminous grasses. In the moderate climate zone this means clover and in regions having a hot and dry climate -- blue alfalfa. Leguminous grasses improve the nutritional properties of feed considerably by raising the content of deficit and irreplaceable protein in it. Owing to the presence of nodule bacteria on the root systems of leguminous grasses, these grasses enrich the soil with nitrogen. Alfalfa and clover are highly productive crops. For example, at the imeni

Gorodovikov Horse Breeding Farm in the Kalmyk ASSR, 200 quintals of hay per hectare were obtained last year from 120 hectares of alfalfa in the second year of its life. Certainly, the irrigated crops are skilfully tended and fertilized mainly with phosphorus-potassium mineral fertilizers.

But are the meadows on other farms being supplied with large quantities of mineral and local fertilizers? Unfortunately, very little. Meanwhile the need for applying a top dressing to the haying and pasture lands is neither a caprice nor a fabrication on the part of the meadow specialists. Perennial grasses respond very well to fertilizers, especially when combined with irrigation -- such is their biological nature. Provide them with an optimum amount of mineral nutrition and the required amount of moisture and thereafter, from early spring until late autumn, they will proceed to develop a rich supply of fodder during all types of weather conditions.

The rational utilization of pastures -- is a condition for the cultivated management of the pasture economy that is equally as important as fertilization and irrigation. The unsystematic grazing of livestock is ruinous to a grass stand. The plants considered to be more valuable from the standpoint of feed gradually disappear from such a stand and the cropping power decreases sharply. An enclosed pasture with grazing by sectors, for example, with the aid of electric fences, makes it possible to maintain a high level of pasture productivity for an extended period of time. The experience of many farms reveals that when the technology for the use of improved haying and pasture lands is observed in an accurate manner, such lands then furnish 4,000-5,000 feed units per hectare in dry valleys and 12,000-15,000 feed units (and in arid regions -- considerably more) on irrigated tracts. Such intensive meadow feed production conforms fully to the requirements of modern animal husbandry.

I emphasize this fact because at times some specialists still express doubts both orally and in the press: is the pasture type of feeding suitable for a livestock complex having a high degree of concentration for its animals? This question was long ago answered by the practice of leading farms throughout our country.

I have already cited as an example the Moscow Leninskiy Luch Kolkhoz. Here permanent cultivated pastures serve during the summer as the foundation for the feed base for a milking herd of 1,500 head. Last year, each cow here produced on the average 5,424 kg of milk. Allow me to cite still another farm -- the Kolkhoz imeni Lenin in Novomoskovskiy Rayon in Tula Oblast, headed by Hero of Socialist Labor V.A. Starodubtsev. A livestock complex for 1,000 dairy cows has been in operation here for many years. With the introduction of this complex into operations, an industrial technology for the production of feed, which is based upon scientific achievements and leading experience, was developed at the kolkhoz. A most important component part of this technology -- watered cultivated pastures the area of which is slightly more than 300 hectares. The productivity of each hectare is 6,000-7,000 feed units.

The pastures on this farm are divided up into enclosures of 25-35 hectares each. From 200 to 250 cows are grazed simultaneously in an enclosure. The daily

portions -- from one half hectare to a full hectare -- are measured off using electric fencing. After the animals have been transferred to the next plot, the uneaten grasses on the first plot are mowed down and thereafter the plot is given a top dressing of mineral fertilizers and watered.

Why is grazing on these plots alternated with mowing operations? It is in this manner that better protection is provided for the stand of grass; the livestock are less likely to trample it down. A portion of the irrigated tract is generally used only for haying operations -- it is here that haylage, grass meal and cuttings are procured for winter use.

In addition to providing the herd with nutritional feed, the cultivated pastures also aid in solving other important tasks. One such task is encountered on farms which have highly productive dairy herds: in the case of a concentrated type of feeding, and unfortunately this type is employed quite often at kolkhozes and sovkhozes, cows characterized by high milk yields break down rapidly and produce weak offspring. In addition, there is a high percentage of barrenness among them. Grazing aids in eliminating these undesirable phenomena. It promotes improvements in the health and reproductive functions of the cows.

Or let us take the problem of utilization of farmyard manure at large livestock complexes. The concentration of a large number of animals in one area often leads to the accumulation of a tremendous amount of organic material and this poses a threat with regard to contamination of the soild, ground waters, rivers and the environment generally. This problem is removed if irrigated haying or pasture lands are created in the vicinity of the complex. Experience has shown that meadow and pasture grasses serve as the most suitable crops for irrigated fields (in accordance with the sanitary-hygienic, agronomical and economic requirements). In such cases the waste run-off from a livestock complex and also the industrial-domestic run-off do not contaminate the water sources but rather are used in the formation of the harvests.

Still another aspect must not be overlooked: an intensification in the cultivation of feed on meadows and pastures serves to release considerable areas of arable land presently occupied by forage crops. These areas, or a considerable portion of them, can be used for the cultivation of grain, technical, vegetable and other crops.

Finally, cultivated meadows and pastures are characterized by a high level of economic effectiveness. The production of grass feed usually requires comparatively small labor and energy expenditures and the results, as we have already stated, are rather high.

With regard to the organizational side of the problem, the greatest success is being achieved at those farms where use is being made of the brigade contract method for feed production purposes. A brigade or team supplied with the appropriate equipment (the production of such equipment and a set of special machines is to be increased substantially) and completely responsible for carrying out an entire complex of measures associated with the utilization of a cultivated pasture or haying tract and tending them, receives payment for its labor based upon the final results. This serves as a reliable guarantee for successful management of the meadow and pasture economy.

The path leading to the intensification of meadows and pastures is beset by many difficulties. There is still a shortage of equipment, despite the fact that in recent years the farms have begun receiving considerably more machines and implements than earlier was the case. As yet, only small amounts of irrigation equipment and electric fencing are being made available for use on meadows. The situation with regard to the mass production of all of this equipment is improving. But in the interest of the work, better and more thrifty use must be made of the equipment already available; on many kolkhozes and sovkhozes this equipment is not always being used as intended.

A serious obstacle continues to be a shortage of seed for meadow and pasture grasses. Specialized seed farms for grasses are being organized only slowly and it can be stated directly that this is not an easy task -- to create an extensive seed production economy on an industrial basis which will rapidly satisfy the requirements for seed, requirements which are being observed in almost all areas. Many farms are using their pasture and haying lands successfully by following the rule: rely upon the seed farms and also make an attempt yourself. Here they are producing seed not only to satisfy their own needs but also for sale. Alfalfa seed is being grown in this manner in a number of rayons in Saratov Oblast.

This convincingly confirms the long held and well known truth that all obstacles are surmountable provided the work is carried out by an interested and thrifty individual. In the final analysis, everything is dependent upon how well an individual knows his work and how he applies himself to it. At the present time, meadow specialists are undergoing training at only 20 agricultural VUZ's out of 104. Certainly, this is inadequate and certainly when you consider that by no means do all of the graduates actually engage in meadow culture work. The training of personnel for this branch of feed production must be expanded. But the chief concern at the present time is not just simply the number of specialists possessing either high or secondary skills. Rather it is the need for changing the attitude which persists in all areas that meadows and pastures are lands of secondary importance. It is often said that "the grass will grow by itself." It truly does grow, but what type of grass? The time is at hand for devoting more attention to the meadows and not only to understanding but also to feeling that this is our land -- land which demands the same concern and thrifty attitude as does arable land. This then is what is important today -- that all land deemed unsuitable or "worthless," as it is sometimes unjustly referred to, responds in the form of rich grass stands and excellent feed for the livestock and, in the final analysis, in milk, meat and other livestock products.

7026
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LIVESTOCK

LIVESTOCK COMPETITION GOALS FOR 1983 SET FORTH

Moscow TRUD in Russian 16 Feb 83 p 1

/Article by A. Deryabin, chief of Main Administration of Livestock Industry of USSR Ministry of Agriculture: "An Agreement and the Technology of Success"/

/Text/ As workers attached to enterprises engaged in the industrial fattening of large-horned cattle and hogs, we are undertaking the obligation of making a worthy contribution towards solving the food program. Many years of operational experience have shown that our enterprises possess all of the potential required not only for fulfilling but even for over-fulfilling the program as planned.

The manual workers, specialists and office workers at industrial complexes for the production of pork -- Il'inogorskiy in Gorkiy Oblast, Kuznetsovskiy in Moscow Oblast, Kalityanskiy in Kiev Oblast, Gubkinskiy in Belgorod Oblast, Vostochnyy in Leningrad Oblast, Luzinskiy in Omsk Oblast, Industrial'nyy in Krasnodar Kray, Krasnogroskiy No. 1 and Krasnogorskiy No. 2 in Chelyabinsk Oblast, Chistogorskiy in Kemerov Oblast, Gornoural'skiy in Sverdlov Oblast, Permskiy in Perm Oblast, imeni 60-Letiya BSSR in Minsk Oblast and Alekseyevskiy in Kuybyshev Oblast and also complexes for the fattening of large-horned cattle -- Mir in Brest Oblast, Druzhba in Vologda Oblast, Pashskiy in Leningrad Oblast, Yumatovskiy in the Bashkir ASSR, Voronovo in Moscow Oblast, Donskoy in Stavropol Kray, Valuyskiy in Belgorod Oblast, Dzhetygenskiy in Alma-Ata Oblast, imeni 50-Letiya VLKSM in Tashkent Oblast and imeni XXV S"yezda KPSS in Kiev Oblast are concluding an agreement among themselves concerning a socialist competition for 1983 and are undertaking obligations to produce more meat than called for in the planned tasks.

We are pledging ourselves to achieve high weight increases in the livestock, to reduce feed consumption per unit of weight increase and to lower the production costs for goods and labor expenditures. Our enterprises operate on the basis of a single technology and are equipped with the same equipment. All of the competing collectives operate under the same conditions and this makes it possible to ascertain the winners in an objective manner.

We will publicize extensively the work of the best livestock breeders and the leading methods of work and the collectives of our enterprises will share their knowledge and experience.

Obligations of Those Participating in the Experiment

	Sale In Live Weight, in tons	Average Daily Weight Increase in grams	Production Cost Per Quintal of Weight Increase, in rubles	Labor Expenditures Per Quintal of Weight Increase (in man-hours)	Feed Consumption Per Quintal of Weight Increase (in quintals of feed units)
		For Pork Production			
Il'inogorskiy No. 1	14,850	635	94.0	2.6	4.3
Il'inogorskiy No. 2	13,600	635	90.0	2.6	4.3
Kuznetsovskiy	12,100	600	94.0	2.8	4.9
Kalityanskiy	13,500	605	108.8	2.4	4.9
Gubkinskiy	11,000	580	108.0	4.0	5.2
Vostochnyy	15,500	630	95.0	2.2	4.6
Luzinskiy	13,430	655	90.0	2.8	4.4
Industrial'nyy	13,400	650	89.0	2.6	4.3
Krasnogorskiy No. 1	12,800	620	95.0	2.5	4.5
Krasnogorskiy No. 2	14,200	620	95.0	2.5	4.5
Chistogorskiy	11,230	585	110.0	3.0	4.95
Gornoural'skiy	12,700	620	100.0	2.9	4.3
Permskiy	15,300	640	105.0	2.8	4.8
Imeni 60-Letiya BSSR	13,760	670	100.0	2.7	4.4
Alekseyevskiy	13,150	605	108.4	3.7	4.9
		For Beef Production			
Druzhba	4,700	1,031	127.0	2.5	5.8
Pashskiy No. 1	4,725	985	127.0	3.1	6.0
Pashskiy No. 2	4,500	990	126.0	3.1	6.0
Yumatovskiy	5,750	1,030	107.0	2.4	5.5
Voronovo	5,370	975	116.1	3.4	5.8
Mir	6,200	1,090	100.0	2.3	5.4
Donskoy	4,082	910	128.7	3.8	7.0
Valuyskiy	4,000	1,000	110.0	4.2	6.0
Dzhetygenskiy	4,310	930	125.0	3.2	6.1
Imeni 50-Letiya VLKSM	4,350	800	146.0	5.5	6.5
Imeni XXV S"yezda KPSS	5,800	945	122.0	3.5	5.6

A social development plan is being carried out at each complex which calls for improvements in working conditions and in housing and cultural-domestic construction.

We are requesting the USSR Ministry of Agriculture, the Central Committee of the Professional Trade Union for Agricultural Workers and the Editorial Board of the newspaper TRUD to serve as arbiters during summarizing of the results of the competition.

The agreement has been discussed and adopted at meetings of the collectives of livestock complexes.

Those livestock complexes which concluded an agreement for a competition on the pages of TRUD last year achieved fine results. On the whole, they increased

the production and sale of meat to the state. Thus the hog raising enterprises, by making extensive use of progressive methods in the raising of their animals, sold 198,300 tons of pork in live weight to the state -- almost 7,000 more tons than the previous year and they fulfilled their plan for selling meat to the state by 102.5 percent.

Intensive work marked by high economic results is being carried out by the labor collectives of such complexes as Il'inogorskiy No. 1 in Gorkiy Oblast, which occupied 1st place during the socialist competition, imeni 60-Letiya BSSR in Minsk Oblast -- 2d place, and Industrial'nyy in Krasnodar Kray -- 3d place.

The Il'ingorskiy workers sold 14,900 tons of pork to the state -- 1,158 more tons than the plan called for -- and they fulfilled their socialist obligations by 105.9 percent. These achievements were first of all the result of tense labor and strict observance of the technological discipline. The collective of this complex has permanent cadres of operators, machine operators and service personnel and it is never hindered by tardiness or shirking on the part of the workers. The livestock are inspected daily by the operators and veterinary workers and timely measures are undertaken to protect the animals in the proper manner. The management of the sovkhoz-combine and the professional trade union committee have succeeded in creating a favorable microclimate in the collective and by no means has the socialist competition been organized on a formal basis. Each worker knows the conditions of the competition.

The Complex Imeni 60-Letiya BSSR sold 13,800 tons of pork to the state -- 778 more tons than the plan called for -- it fulfilled its socialist obligations by 103.6 percent and it obtained the highest average daily increase in the weight of the animals during fattening -- 675 grams. It bears mentioning that the work of the zooveterinary, engineering-technical, economic and other services was also organized very well at this enterprise. Quality checks are carried out systematically on the feed being received from a mixed feed plant and a production technology that has been developed is followed in a very strict manner. A permanent school for zooveterinary training is in operation on the farm. An effective socialist competition has been launched among the livestock breeders. Each year the operators accept socialist obligations which exceed the planned level of capability for the enterprise.

The Industrial'nyy Complex sold 13,600 tons of pork to the state. Here the average daily weight increase in the hogs during fattening was 672 grams. And its other indicators are also good. But the Krasnodar workers sold less meat to the state than did the El'inogorsk and Belorussian workers.

The obligations for meat sales were also fulfilled by such complexes as Vostochnyy in Leningrad Oblast, Luzinskiy in Omsk Oblast, Gornoural'skiy in Sverdlovsk Oblast, Krasnogorskiy in Chelyabinsk Oblast, Alekseyevskiy in Kuybyshev Oblast, Kalityanskiy in Kiev Oblast and Permskiy in Perm Oblast.

The collectives of complexes which are competing in the production of beef have also increased their production of goods. They sold 53,500 tons of meat in live weight to the state, or 2,600 more tons than in 1981. They fulfilled their obligations by 104.9 percent.

The best indicators in the socialist competition for the production and sale of meat to the state and for raising efficiency were achieved by the Mir Complex in Brest Oblast, recently discussed on the pages of TRUD. I would like to mention in particular that the field-team system of labor has been introduced at this complex. This system promotes growth in productivity, it lowers expenses and it increases the material interest of all workers.

The Yumatovskiy Complex, which sold 5,000 tons of beef to the state in live weight, successfully coped with its production program. In the process, the average delivery weight for one young bull reached 500 kg. Compared to 1981, an increase took place in the average daily weight gain at this complex and decreases were recorded in feed consumption and in the production cost per quintal of weight increase. The Yumatovskiy workers occupied 2d place during the socialist competition.

Based upon the production results, 3d place was occupied by the Druzhba Complex which sold 4,900 tons of beef to the state. The collective of this enterprise raised labor productivity and achieved reductions in feed consumption and in output production costs compared to the 1981 levels.

It can generally be stated that all of the complexes for the fattening of large-horned cattle fulfilled their obligations. But their indicators nevertheless differ noticeably. High output production costs are still the rule at the Imeni 50-Letiya VLKSM, Donskoy and Dzhetygenskiy Complexes. One important reason for this -- a shortage of internally produced feed and unsatisfactory feed quality.

The same can be said regarding the hog farming complexes Chistogorskiy in Kemerovo Oblast and Gubkinskiy in Belgorod Oblast, which did not even fulfill the obligations they undertook for the sale of pork. In addition to low quality feed, the situation at these enterprises is such that technological discipline is not always observed. The veterinary service is very weak and, as a result, the loss of livestock is considerable, especially young stock.

These shortcomings, which are making it impossible to achieve higher results, must be eliminated by the leaders and specialists of these complexes as rapidly as possible. During a meeting with Moscow machine-tool builders, the general secretary of the CPSU Central Committee Yu.V. Andropov stated that our chief concern should be that of raising production efficiency. Everything we do and everything we produce must be accomplished and produced with minimal costs and in a high quality manner.

These statements fully apply to the workers at animal husbandry complexes.

In conclusion, I would like to congratulate the winners -- the collectives of the Il'inogorskiy and Mir Complexes -- and to wish all of the livestock breeders new labor successes during the third year of the five-year plan.

7026
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LIVESTOCK

OVERVIEW NOTES REDUCED ESTONIAN LIVESTOCK, DAIRY PRODUCTION

Tallinn SOVETSKAYA ESTONIYA in Russian 16 Jan 83 p 1

[Article: "Relying on the Experience of Leading Workers"]

[Excerpts] The difficult year for agricultural workers is behind them. The kolkhozes and sovkhozes of the republic have gathered a good harvest of grain crops, potatoes and vegetables. State assignments for the sale of these kinds of agricultural products to the state have been fulfilled.

During the first half of last year the shortage of feeds caused special concern. The situation was also exacerbated by the shortcomings in labor organization on a number of farms. Therefore the production and procurements of animal husbandry products proceeded as intended far from everywhere. During the first eight months of the year the average milk year per cow decreased by 211 kilograms. The average weight gains were extremely low, as a result of which the farms were forced to sell the state underfed animals.

But they still managed to stabilize production during the second half of the year. Still the 1981 level for the production of animal husbandry products was not reached. State assignments for the procurements of meat and milk remained unfulfilled. The plan for the sale of cattle and poultry to the state was fulfilled by only 80 percent, and milk--by 88 percent. The amount of eggs sold was 4 percent more than the plan called for.

Since in September the average milk yield per cow in the republic was higher than in 1971, by 1 January it was possible to obtain 3,385 kilograms of milk from each cow, but this was still 88 kilograms less than a year ago. The highest milk yields were achieved on the kolkhozes and sovkhozes of Rakvereskiy Rayon (3,715 kilograms), but they were still 65 kilograms less than last year. A large amount of work for developing dairy animal husbandry was done in Pyarnuskiy Rayon which rose from average to one of the leaders.

As compared to 1981 the productivity of cows increased only on the farms of Pyarnuskiy (+69 kilograms) and Pylvaskiy (+60 kilograms) rayons. The most significant decline took place in Paydeskiy (-195 kilograms) and Khiyumaaskiy (-194 kilograms) rayons. The lowest milk yield was on the farms of Valgaskiy Rayon.

The sale of milk to the state decreased on all rayons except Pylvaskiy and Pyarnuskiy, and the decline was exceptionally significant on the farms of Raplaskiy, Kokhtla-Yarveskiy and Khar'yuskiy rayons. Not a single rayon fulfilled the assignments for the sale of milk.

Nonetheless in almost every rayon there are farms which have managed to increase the production of milk and fulfill their commitments to the state.

Last year clearly revealed the shortcomings in labor organization, and many reserves for increasing the production of milk, meat and other products were not utilized either. Just the shortage of feeds cannot explain the reduction of the average milk yields by 300-400 kilograms. The productivity of the herd dropped most significantly on those farms where there were interruptions in the shipment of feeds to the farms, where the feeds were utilized inefficiently and without preliminary processing, where the farms were not heated, and some of the animal husbandry workers took an indifferent attitude toward their responsibilities. In these collectives the question of strengthening labor discipline, increasing the responsibility of each worker for matters entrusted to him and steadily implementing the measures that have been earmarked stand out sharply on the agenda.

Many farms did not cope with the plan for the sale of livestock and poultry, and not a single rayon of the republic fulfilled it. While in 1981 the large horned cattle sold to the meat combines weighed an average of 427 kilograms, last year they weighed 404 kilograms, and these figures for hogs were 98 and 93 kilograms, respectively. On the farms of Raplaskiy, Vyruskiy, and Kingiseppskiy rayons these figures were even worse. The situation improved only in the last months of the year.

As of 1 January of this year the kolkhozes and sovkhozes had 2 percent more large horned cattle and 6 percent more hogs than last year. This makes it possible to successfully fulfill the year's assignments, but only under the condition that the average sales weight of hogs will be 101-102 kilograms, and of large horned cattle, no less than 435 kilograms. The average daily weight gains of hogs being fattened should be 450-500 grams, and of large horned cattle--at least 600 grams. With conscientious labor this can be achieved, which is shown by the experience of animal husbandry workers of the Taevaskoya and Pylva kolkhozes in Pylvaskiy Rayon, the Rakhva Vyyt Kolkhoz in Khar'yuskiy Rayon, the Kaarma Kolkhoz in Kingiseppskiy Rayon, the Syprus Kolkhoz in Khaapsaluskiy Rayon, the Ranna Sovkhoz and many other farms.

When dealing with the organization of the wintering of livestock it is necessary to think ahead of time about summer maintenance and feeding. Now is exactly the time to earmark measures for expanding the areas planted in feed crops and increasing their productivity.

The conditions for producing products on the farms are now favorable enough, and it is necessary to take advantage of them skillfully. To obtain maximum output during the winter period should be a primary militant path for the animal husbandry workers and party organization of each farm. Skillful utilization of feeds, good labor organization and high discipline will make it

possible to provide for fulfillment of the planned assignments for the production of animal husbandry products.

11772
CSO: 1824/210

LIVESTOCK

WINTER PERIOD OF LIVESTOCK PRODUCTIVITY IN VARIOUS AREAS

Moscow IZVESTIYA in Russian 27 Jan 83 p 1

[Article: "Winter on the Farms"]

[Text] Wintering is in full swing on the country's animal husbandry farms. On the whole it is proceeding in an organized way. In many regions of the country the production of milk, meat and eggs has increased appreciably as compared to last year. Animal husbandry workers are striving to respond with deeds to the decisions of the May and November (1982) Plenums of the CPSU Central Committee in order this year to make an essential contribution to the implementation of the Food Program.

Socialist competition for exemplary wintering of livestock and increasing the production of animal husbandry products has become widespread and effective.

Animal husbandry workers of three traditionally competing oblasts--Moscow, Kiev and Leningrad--have summed up the results of the year and the first months of wintering. The farms of all the oblasts have increased the milk yields. The highest additional production of milk as compared to 1982 was achieved by the farms of the Moscow area, and for production of meat--those of the Kiev area. And in Leningrad Oblast the highest average yield of milk per cow was 3,171 kilograms per year. Leningrad workers also fulfilled the plan for procurements of meat, milk and eggs. During these winter days the competitors are consistently increasing the production of animal husbandry products. Thus during the first half of January in the Moscow area the sale of meat to the state increased by 21.6 percent as compared to the same period of last year, and on Leningrad farms--by 28 percent. A good start for the middle year of the five-year plan!

During the first months of wintering milk production increased as compared to the same period of last year on the kolkhozes and sovkhozes of the majority of oblasts and autonomous republics of the nonchernozem zone and the central chernozem and Ural economic regions. Meat production increased on the farms of all oblasts and autonomous republics of the Volga-Vyatka region and also in Tambov, Vladimir, Ulyanov, Perm, Bryansk, Smolensk, Tula and Lipetsk oblasts and in the Udmurt ASSR. Now they will have to reinforce and develop the success, working from day to day with additional milk yields and weight gains of livestock.

Unfortunately, as of 1 January of this year the sale of meat and milk was lower than that of the same period of 1981 in Kazakhstan, Estonia and the Ukraine. The arrears in these and certain other republics were reflected in the final result of the branch: as was noted in the report of the USSR Central Statistical Administration, the plan for procurements of milk, livestock and poultry was not fulfilled.

The main task facing local soviets, rayon agro-industrial associations, managers and specialists of the farms is to reach the planned goal for 1983 everywhere and as quickly as possible, to utilize creatively and energetically all possibilities of increasing the productivity of the farms, and to strengthen labor and technological discipline.

On the leading farms the agenda has been carefully thought out for each section, an exemplary sanitary policy has been introduced, a system of changing shifts for animal husbandry workers has been developed, and all mechanisms and equipment are operating without interruption.

Unfortunately, animal husbandry is certainly not yet being conducted everywhere on a modern basis, as a result of which the genetic potential of the animals is being poorly utilized. For example, last year there was a significant reduction in the volumes of raising livestock and poultry in Dagestan, Checheno-Ingushetiya and in Rostov and Irkutsk oblasts. In the Checheno-Ingushet ASSR and Irkutsk Oblast milk production also decreased. Yet in each of the aforementioned oblasts and autonomous republics there are many farms which are successfully increasing the production of farm products.

Local soviets and economic agencies are called upon to disseminate energetically and effectively the experience of the best farms and collectives of leading farms, and on each lagging farm they must attentively analyze the reason for the poor work and help the people to eliminate the shortcomings efficiently.

During the winter time it is especially important to utilize feeds intelligently and efficiently. By the beginning of January in the country as a whole there were 14 million tons more of them that at the same time last year. But this certainly does not mean that the demand regarding their utilization can be reduced anywhere. On the contrary, the proportion of feeds in the production costs of animal husbandry products is very high and therefore by efficiently utilizing them the leading farms both increase the output of products and reduce their production costs.

But there are also many farms where the expenditures of forage per quintal of output are twice the zootechnical norms and sometimes even more. These include, in particular, Astrakhan, Chita and Orel oblasts, the Mordovian and Kalmyk ASSR's and Maritime Kray. Most frequently this happens because the feed is distributed in unprepared form, its expenditure is not differentiated depending on the productivity of the animals, and the feeding of the animals is not normed.

There are still a couple of months before the end of wintering. And it is necessary to utilize forage economically and carefully, to use progressive forms of preparing feeds, and to create conditions whereby nothing is wasted because of the carelessness of individual people or the low level of zootechnical work. Local soviets, rayon agro-industrial associations and people's controllers are obligated to constantly check on how the farms utilize forage and conduct regular inspections of the storage of hay, haylage, silage and straw. It is necessary to achieve rhythmical, continuous operation of feed shops and feed kitchens.

The people's deputies and deputy groups on the farms now play a large role. They are called upon to create a healthy psychological climate in their collectives and achieve high conscientious discipline. Along with production organizers and farm managers the people's deputies should be concerned not only about the technological support for the production process, but also domestic, trade and medical support. Always to keep up with matters of the collective, to know its problems, to help in solving them and to create good working and recreation conditions for the people--this is the honored duty of the people's elect.

The winter which has been mild in many regions until recently is changing its character. It has become colder and a good deal of snow has fallen on many territories. This is why experienced organizers and specialists, without waiting until "later," rapidly, taking the situation into account, are adjusting plans for conducting wintering and are constantly keeping track of the rations for feeding the livestock and making sure that there will be reliable roads and approach paths to the farms, that all equipment will operate without breakdown and that the heating conditions in the premises will be optimal. And this should be done everywhere.

The country's animal husbandry workers are undergoing a difficult examination. It is known that the most difficult months of wintering are the last ones. There is now every possibility of conducting it in an organized and efficient way everywhere. The success of wintering is the foundation for considerably increasing the productivity of the farms, fulfilling plans and commitments, and advancing toward the goals earmarked by the Food Program.

11772
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TRADE INSTITUTE DIRECTOR LAMENTS WASTE OF BREAD

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 11 Feb 83 p 3

[Interview with Aleksandr Nikolayevich Yarovnikov, deputy director of the All-Union Scientific Research Institute for the Study of Demand for Consumer Goods and Market Conditions (VNIIKS), by Yu. Chaplygin, SOTSIALISTICHESKAYA INDUSTRIYA editor for the department of economics and propaganda: "Nothing Is More Precious Than Bread"; date and place not specified]

[Text] Bread is a symbol of strength, of prosperity. It has been and remains a measure of all values. There is truth in the folksaying: "You can tell how well people eat by the quality of their bread." Our loaf weighs 90,000 tons--that is how much bread and hulled and milled products the industry delivers daily to the table of the Soviet people. In an average year that means 138 kg of hulled and milled products for each of us. How are they consumed? Are we sensible in our use of this most important possession? A. Yarovnikov, deputy director of VNIIKS, answers these and other questions put by Yu. Chaplygin, our editor for the department of economics and propaganda.

[Question] Recently there has been widespread discussion of the problem of a thrifty attitude toward bread. What do you think Aleksandr Nikolayevich, what brought this about?

[Answer] I suppose it is because it has become obvious to many people that we are using our most valuable resources--cereals--inefficiently and sometimes even carelessly. I will clarify this with an example. Suppose you have just bought a long loaf of white bread. But do you know what it is, how much it costs society? The flour from approximately 11,000-12,000 kernels of wheat went into it. To obtain those kernels 4 square meters of fertile land had to be plowed and the crop had to be planted and raised. Then it had to be harvested, dried and the grain milled, the flour delivered to the bakery, the actual loaf baked, sent out to the store in good time and sold to you for only 13 kopecks. In my view the inputs of social labor in all these stages are not in line with the price of the end product. That is why these economic and moral collisions are occurring which are today disturbing all of us. We are especially alarmed by the excessive losses of hulled and milled products. You can make a judgment about that from the fact that their per capita consumption is dropping constantly, while production is rising....

[Question] It follows that in consumption of hulled and milled products there is a channel through which the country's most important resource is leaking away pointlessly?

[Answer] I think that is precisely the essence of the problem which bothers us. In recent years there has been a noticeable change in our diet; there is now smaller consumption of hulled and milled products, but the volume of their production and sales has by no means diminished. What is going on here? Apparently an ever larger part of hulled and milled products are not reaching the dining table. Here are the facts. If we start with 1970, per capita consumption of hulled and milled products has dropped 11 kg. Mainly because of city dwellers, whose per capita consumption is now 132 kg of all hulled and milled products. There have been no changes among rural inhabitants: at the present time every one of them now consumes the same as some 10 years or so ago--170 kg. Now we take production. The bread-baking industry alone has increased the output of its product by more than 3 million tons. The volume of their sales has increased by almost 2 billion rubles, and retail purchases of flour, hulled products and macaroni products have increased by 1.5 billion rubles.

[Question] The losses of bread are affected by the narrowness of the assortment. Industry is capable of manufacturing some thousand different products, but the selection in the stores is small, and families are forced to do baking at home, which is wasteful. At present there is a manifest shortage of small-piece goods. Not uncommonly we encounter rejected bread--sometimes misshapen, sometimes the crust is burned, or it was not kneaded properly, and there are cases when they sell day-old, stale bread in the stores--it was delivered late, and there is no protective wrapper. But do these causes account for a large amount of waste?

[Answer] The term "reject," just like the term "waste," is not suitable for bread. But unfortunately both types of loss are still great. They occur precisely because of an unthrifty attitude--in production, in the trade sector, and also in the home. It is not everywhere that you can buy bread that has been sliced, much less packaged in small portions. You buy a long loaf, even two, or even an entire bukhanka [molded loaf, usually rye]. If it is not eaten, it is no matter: After all, bread costs only kopecks. It has been calculated that more than 1 kg of bread scraps accumulates in the average family in 1 week.

[Question] But to some extent these scraps are still used....

[Answer] That is just it--"to some extent." Our surveys have shown that only one-fourth of the old bread is used in preparing croutons, rusks, bread crumbs and other things for the table. The rest is thrown out if it is not collected to feed livestock. An effort is made to turn in an empty bottle, but bread is thrown away. Is this not an economic paradox? And the substantial waste of bread already baked used to feed livestock?! In certain regions they amount to 400 kg a year per family. This is probably the main channel of the losses.

[Question] How is this channel to be closed? It is evident that such losses of bread will not be curtailed by some mere measure?

[Answer] An interrelated set of measures is, of course, needed here. First, the prices of hulled and milled products, in the opinion of certain economists, should correspond more closely to their production costs. Second, for those who keep livestock there is a need to create more favorable conditions for purchasing feeds. The state of affairs with mixed feeds needs to be straightened out. USSR Ministry of Trade needs at least 17 million tons of concentrated feeds per year for sale to the public, but only 5 million tons have been allocated. Third, there is a need to raise the quality and expand the assortment of hulled and milled products, to produce more of them in small sizes, and to sell them in protective packaging. This will make it possible not only to reduce losses of bread in consumption, but also to bring about a relative reduction of its production, which in and of itself will signify a substantial saving of grain resources.

[Question] In certain regions of the country experiments in optimum bread consumption are being conducted. What have been the results?

[Answer] Good on the whole. For example, in Lithuania bread consumption has dropped 20 percent thanks to sensible organization of its distribution. In a number of oblasts of RSFSR the weight of the bread serving has been cut in half in dining halls, coffeehouses and restaurants. The bread consumption per customer has dropped 7 percent, and the amount of waste bread has dropped to one-half or one-third.

[Question] Given the amount of hulled and milled products we consume, such results must be given very high marks. And if this attitude toward bread is to become universal, there will have to be an important enhancement of responsibility for bread--both economic responsibility and also civic responsibility....

[Answer] I agree completely. When we take in our hands a long loaf of white bread or a large loaf of rye bread, we should not only recall with gratitude the labor of those who gave it to us, but also remember that this is a basic foodstuff for us as human beings and there is nothing more precious than bread.

7045
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AGRO-ECONOMICS AND ORGANIZATION

INCREASED PROCUREMENT OF FARM PRODUCTS FROM POPULATION ASKED

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 11, Nov 82 pp 1-4

/Article by A. Yashin, deputy chairman of the Board of Tsentrosoyuz: "Tasks of Cooperative Workers in the Realization of the Food Program"/

/Text/ The food program approved by the May (1982) Plenum set the task, along with meeting the population's demand for bread, a wide assortment of bread and flour products, potatoes and sugar, of ensuring the needs for hulled and rolled products, confectionery, margarine, eggs and fish, as well as of improving the supply of meat, milk, vegetable oil and fruit and vegetables products, during the 11th Five-Year Plan.

Procurement workers of consumer cooperatives, who have a wealth of experience in the organization of procurements and in the search for additional food and raw material resources, make a significant contribution to the realization of the food program. Year after year they increase the volumes of procurements of agricultural products.

Everyone remembers the past year of 1981 with its uncommonly unfavorable climatic conditions for the production of agricultural and, especially, plant products. However, even under these difficult conditions with the daily assistance of party and Soviet bodies the procurement turnover of consumer cooperatives was fulfilled 105.9 percent. It totaled 8.75 billion rubles and, as compared with 1980, rose by 420 million rubles, or 5 percent in state purchase prices. Procurement workers of consumer cooperatives purchased 16.5 million tons of potatoes and fruit, vegetable and melon crops, 857,000 tons of meat, almost 9 billion eggs, 56,000 tons of honey and many other products. I cite these figures only to show the considerable volumes of foodstuffs procured by cooperative workers.

This year procurement workers of consumer cooperatives fight to ensure the purchases, on account of the state plan and at agreed prices, of 18.3 million tons of potatoes, fruits, vegetables, watermelons and muskmelons, or more than 30 percent of the purchases throughout the country, no less than 1 million tons of livestock in carcass weight and meat products, 7.8 billion eggs, 90,000 tons of wild fruits and berries, about 22,000 tons of mushrooms and many other products.

We must especially increase the purchases of products from the population. In 1982 procurement offices of consumer cooperatives must purchase 1 million tons of meat products, 3,600,000 tons of potatoes, 1,600,000 tons of vegetables and 900,000 tons of fruits on the private subsidiary farms of citizens. These assignments are stepped-up, but fully realistic. Their fulfillment is the first contribution of

cooperative workers to the realization of Comrade L. I. Brezhnev's directives concerning a significant improvement in the work with private subsidiary farms and orchard and garden cooperatives.

For 1983 these volumes will rise considerably and, on the whole, the purchases of agricultural products from the population should increase by 43.6 percent during the current five-year plan.

To ensure the purchases of products from the population, considerable assistance was given to Tsentrosoyuz and to cooperative organizations. Motor vehicles and, to stimulate purchases, concentrated feed, goods and some material and technical resources were allocated additionally. Procurement offices received the right to give procurement workers ready cash for the purchase of livestock and meat products in remote villages and farmsteads. For this they were given the right to establish an incentive fund for owners of private subsidiary farms for an increase in the production and sale of livestock products to consumer cooperatives, for procurement workers, for the best achievements in the development of commodity livestock products on the private subsidiary farms of citizens and for chairmen of executive committees of rural and settlement soviets of people's deputies actively promoting an increase in the production and purchases of agricultural products on private farms.

To supplement this, it must be noted that consumer cooperatives were given the right to build their mutual relationships with owners of individual subsidiary farms on commercial market principles, that is, to purchase agricultural products at agreed prices and to sell them without a loss on condition that these prices are not higher than on the kolkhoz market. No one in the country except consumer cooperatives has such conditions for the purchase of agricultural products from citizens. Utilizing all economic levers, procurement workers of consumer cooperatives must attain a significant increase in the purchases of food products this year.

An increase in the volumes of purchases requires a fundamental improvement in the entire organizational work of the procurement apparatus.

In my opinion, on what should the principal attention of procurement workers of consumer cooperatives be concentrated?

First of all, every procurement office should know clearly and in detail how the resources of products purchased on kolkhozes and sovkhozes on the basis of forward contracts are determined. Cooperative workers should take every measure so that every contract with every farm may be unconditionally fulfilled in a full volume and assortment of products of the highest quality. It must not be forgotten that the forward contract is the order of the state for products to meet the needs of the population and industry for raw materials. Cooperative workers must see to it that every union of consumer cooperatives purchases in the volumes of and in excess of the plans such products as cucumbers, tomatoes, carrots, onions, garlic, melon crops and pit and stone fruit crops, a significant amount of which is annually underpurchased by Russian, Ukrainian, Belorussian and some other unions of consumer cooperatives, which does great damage to the supply of vegetables and fruits for the population.

With the significant growth of the purchases of agricultural products and raw materials on private subsidiary farms and in orchard and garden associations a correct evaluation of the resources of commodity products in every homestead, village and farmstead or rural center, rayon, oblast and republic is also of special importance. For this repeated visits to private subsidiary farms and the conclusion of preliminary contracts with their owners are organized. Of course, this is a difficult and troublesome matter, if we consider that in the country there are 35 million private subsidiary farms of citizens, of which 20 to 21 million have commodity output. Last year cooperative organizations concluded 8.2 million contracts for the entire year, that is, with every second or third farm, and in 1982 a total of 8.3 million such contracts had been formulated on 15 August. The task of establishing contractual relations with no less than 80 percent of the private subsidiary farms having products for sale was set for unions of consumer cooperatives.

An underestimate of this work leads to serious miscalculations. In 1981 there was a good crop of apples in a number of central oblasts in the Russian Federation, in Belorussia and in the Baltic Area. Although the unions of consumer cooperatives of these regions greatly overfulfilled purchase plans, many cooperative organizations overlooked this crop and were not prepared to accept the output offered by orchard owners. This evoked numerous justified reprimands and complaints on the part of rural inhabitants from Belorussia, as well as from Orel, Kursk, Smolensk, Lipetsk, Tula and Chernigov Oblasts. Considerable resources of apples were not utilized. Even this year, although there are fewer complaints, they still exist. For example, residents of Kherson Oblast and Stavropol Kray complained that they could not sell early potatoes, residents of Chernigov Oblast reported on shortcomings in egg purchases and residents of Perm Oblast wrote about difficulties in the sale of honey. These and other examples indicate that cooperative workers have not yet reached every farm and have not come to an arrangement with its owner about the purchase of his products at the proper time, that is, they have manifested indifference and sluggishness in purchases of products. The Board of Tsentrosoyuz considers this a serious shortcoming in work.

In every union of consumer cooperatives and in every procurement office specific work must be done with the population on the mastering of a wide assortment of all commodity output and exemplary trade in it. We must prevent a situation in which grown products are lost. We must promptly take care of containers, processing capacities and the organization of the transportation of products for sale in fresh form and for processing.

An efficient organization of the operation of receiving-procurement and fermenting-pickling centers, storage facilities and processing enterprises connected with the acceptance, processing and shipment of potatoes and fruit and vegetable products during the period of their mass arrival requires special attention. The Board of Tsentrosoyuz made it incumbent upon republic, kray and oblast unions of consumer cooperatives to organize a 24-hour operation of these primary procurement links. Seminars on an improvement in the organization of procurements and in the quality and efficiency of work were held with managers and workers of procurement organizations and processing enterprises--commodity specialists, agronomists, warehouse men, laboratory workers, technologists, foremen, economists and bookkeepers.

For the period of mass procurements and shipments of fruit and vegetable products Tsentrosoyuz made it incumbent upon unions of consumer cooperatives to assign the necessary number of motor vehicles and tractors with trailers, manning every unit with two drivers, to procurement organizations. The task of managers of procurement organizations is to ensure maximum efficiency in the use of their own and enlisted transport vehicles, railroad cars and river vessels and barges.

The most intensive and crucial period of work for our procurement workers is in September-December, when our purchase of agricultural products comprises more than 40 percent of the volume of annual procurements. This is a period of hard work not only with respect to the purchases of potatoes, fruits and vegetables, but of livestock and meat products as well, including rabbit and poultry products and wild fruits, berries and mushrooms.

Quite recently, on 5 August 1982, the CPSU Central Committee and the USSR Council of Ministers adopted the decree "On Additional Measures To Expand the Sale by Kolkhozes, Sovkhozes and Other Agricultural Enterprises of Fruit and Vegetable Products to Organizations of Consumer Cooperatives and at Kolkhoz Markets."

This decree gave agricultural enterprises the right to sell up to 10 percent of the planned volume of vegetables, melon crops, fruits and berries (except for common onions, garlic and table grapes), as well as all above-plan output, to organizations of consumer cooperatives and at kolkhoz markets at prices determined in agreement between the parties and to credit them toward the fulfillment of the state purchase plan.

The new decision continues the policy of improvement in the supply of food products for our country's workers and of reduction of the losses of grown fruit and vegetable products developed by the May (1982) Plenum of the CPSU Central Committee.

Farms are now directly interested in selling part of the harvest to our procurement offices and city cooperative trade organizations and directly at markets, because market and agreed prices are much higher than purchase prices. This makes it urgently necessary for cooperative procurement workers to establish closer relations with kolkhozes and sovkhozes and not only in the zones assigned to them, but also in the zones of the Ministry of Fruit and Vegetable Industry, the Ministry of Food Industry and others, so that, utilizing the favorable market conditions and the extensive possibilities that open up, they may significantly increase the resources of fruit and vegetable products for sale in cities.

It is important on the basis of this decision to come to an agreement with farms on an increase in the production and sale to consumer cooperatives of early products. There is still a shortage of these products and their market prices are high, which evokes justified complaints by city dwellers.

Purchases of various kinds of poultry--hens, geese and ducks--on the private subsidiary farms of citizens--are major potentials for the replenishment of the resources of livestock products. So far their purchases have been organized very poorly. Last year consumer cooperatives purchased only about 8 million head of poultry--about 0.8 percent of the production or, on the average, 200 grams per private subsidiary farm. The implementation of measures connected with the organization of the purchase, overkeeping and processing of poultry is an urgent task

of procurement organizations of consumer cooperatives. This puts forward immediate tasks of providing procurement organizations with motor transport and containers and of constructing or adapting poultry slaughtering shops. Calculations show that, if, on the average, two or three head of poultry are purchased from every private subsidiary farm and even more from some farms, it will be possible to additionally procure 70,000 to 80,000 tons of poultry meat instead of the 8,000 tons now purchased from the population.

Private rabbit breeding represents a significant help in the increase in the resources of diet meat. The experience in the work of the people of Kharkov Oblast in this area can be cited as an example. A total of 2,870 tons of rabbit meat in live weight were purchased in Kharkov Oblast last year, including about 100 tons by cooperative workers at agreed prices. Here procurement workers together with societies of rabbit breeders are engaged in purposeful work on the development of mass rabbit breeding and improvement in the forms and methods of purchases. In this oblast 90,000 households, or one out of four yards, are engaged in the breeding of rabbits. Procurement workers conclude contracts with them and purchase products in good time.

Suma, Poltava, Chernigov, Krasnodar, Rostov, Stavropol, Moscow and some other unions of consumer cooperatives are successfully engaged in work on the development of rabbit breeding. Russian, Lithuanian, Latvian, Tajik and Estonian unions of consumer cooperatives fulfill the assignments of Tsentrosoyuz for purchases of rabbit products.

At the same time, this situation by no means exists everywhere. Kazakh, Belorussian and Georgian unions of consumer cooperatives and, on the whole, Ukoopsoyuz do not fulfill the assignments of Tsentrosoyuz for purchases of rabbit meat and skins and lower the volumes of their purchases. The poor organization of rabbit purchases is one of the main reasons for this. In many procurement offices procurement workers not only fail to organize the purchase of rabbits directly on private subsidiary farms, but also refuse to accept the rabbits delivered to them. It is understandable that with such a disregard for this problem it is impossible to fulfill the envisaged program for the development of the production and purchases of rabbit products. Every rayon must have centers for the acceptance and slaughtering of rabbits provided with equipment for the drying of skins. For this it is necessary to urgently reconstruct existing livestock slaughtering centers. All unions of consumer cooperatives have the recommendations of Tsentrosoyuz for the performance of these operations. Work must be organized so that rabbit breeders pay attention to the raising of products and do not waste time for a search for procurement workers.

The decisions of the May (1982) Plenum of the CPSU Central Committee stress the need for a more active mobilization of the resources of such highly valuable diet food products as wild fruits, berries, nuts and mushrooms. During the 11th Five-Year Plan the purchases of these products, as compared with the volume procured during the 10th Five-Year Plan, should almost double. Through our measures we envisage the purchase during the 5-year period of no less than 864,000 tons of wild fruits and berries, including 65,000 tons of small cranberries and cowberries and about 150,000 tons of mushrooms. To accomplish these tasks, the Board of Tsentrosoyuz elaborated a whole set of measures for the organization and development of

the material and technical base for the procurement of wild products and recommended them to unions of consumer cooperatives. However, the procurement seasons of last and this year have shown that many unions of consumer cooperatives evidently underestimate the organization of the purchases of these products and do not fulfill the outlined plans.

The situation must be rectified in all unions of consumer cooperatives. Schoolchildren, pioneer and Komsomol organizations and forest camps should be mobilized for and pensioners and workers on cooperative wild animal rearing farms should be enlisted in the gathering and procurement of wild products. Procurement and processing centers should be established closer to places where these products are gathered. It is also necessary to fully utilize the measures to stimulate the sale of wild fruits, berries and mushrooms to consumer cooperatives recommended by Tsentrosoyuz.

The existence of a well-prepared material base is a decisive condition for the full mastering of agricultural products by procurement workers, preservation of their high quality and elimination of losses along the entire path from their production to consumption. The May Plenum of the CPSU Central Committee attached especially great importance to this problem.

Consumer cooperatives continue to increase the capacities for the acceptance, processing, shipment and storage of purchased agricultural products. During the 5-year period plans are made to build no less than 12,000 receiving-procurement centers and 5,000 receiving store centers in large horticultural collectives. With an assignment for the commissioning of 2,340 universal centers, 2,060 centers outfitted with refrigerating equipment and more than 4,000 rural centers in adapted premises were built last year. A total of 2,440 universal centers are to be opened this year.

Tsentrosoyuz and cooperative organizations implement measures to modernize livestock slaughtering centers and to prepare the necessary conditions for an extensive purchase and processing of live rabbits and poultry. At present Tsentrosoyuz put into production a mobile center for the acceptance of rabbits, poultry and meat and other products. This is the primary base without which it is impossible to organize all-encompassing cultural work with the population on purchases of various products on private farms. This was and in many cooperative organizations still remains the biggest bottleneck in procurement work, which must be eliminated rapidly.

In consumer cooperatives during this season receiving-procurement and fermenting-pickling centers and storage facilities for potatoes, fruits and vegetables of a total capacity of 3,872,000 tons have been put into operation and more than 65,000 seasonal receiving centers for the purchase of agricultural products from the population have been opened. Stores and public dining enterprises are also widely enlisted in this. Canning plants and shops should accept up to 1 million tons of fruit and vegetable products.

There are 2,560 livestock slaughtering centers, which can ensure the slaughter of 4 million head of livestock, for the processing of purchased livestock.

All this material and technical base makes it possible to fully master the resources of the procurements of potatoes and fruit and vegetable products from kolkhozes and sovkhozes and of the entire assortment of products from the population everywhere in the zone assigned to consumer cooperatives. However, every cooperative, every procurement office and every union of consumer cooperatives must again and again check the readiness of this base, the adjustment of equipment and mechanisms and the preparedness of workers at all the sections of the procurement conveyer.

Special attention must be paid to the preparation of containers and packaging materials, because without this it is impossible to procure potatoes and fruit and vegetable products and to ensure their preservation. We need many containers. This year we needed 135 million boxes, more than 8 million barrels in terms of 100 liters and 122 million bags. The USSR State Committee for Material and Technical Supply and the state committees for material and technical supply of the Union republics allocated stocks in a full volume for containers for this need (with due regard for remainders). Only the need for bags is not met.

The organizations of the State Committee for Material and Technical Supply supply new and returnable containers better than during past years. However, there are also many deficiencies here. During the first half year the Krasnoyarsk and Trans-Ural Main Administrations for Material and Technical Supply owed a large number of box sets to the Russian Union of Consumer Cooperatives and the Verkhnevolzhsk Packaging Materials Trust and the Arkhangelsk and Murmansk Administrations for the Supply and Sale of Timber undershipped new boxes to the Ukrainian Union of Consumer Cooperatives. The Ukrainian Industrial Packaging Materials Trust disrupts the delivery of returnable containers to this union of consumer cooperatives, which is one of the basic suppliers of fruit and vegetable products to the consumers of the all-Union stock every year, including this year. The Kirov, Kalinin, Arkhangelsk, Komi, Perm and Sverdlovsk Administrations for Supply and Sale of Timber also very poorly supply packing case wood and barrel log to this Ukrainian Union of Consumer Cooperatives. As a result, owing to the lack of barrels, some Ukrainian unions of consumer cooperatives held back the acceptance and pickling of cucumbers.

All this creates additional difficulties for a prompt acceptance and shipment of products. Under these conditions procurement workers must maneuver available container resources very efficiently and strive for a careful attitude toward them and for an accelerated rate of turnover. Of course, we must seek a full delivery of containers and packaging materials according to the allocated stocks from the organizations and enterprises of the USSR State Committee for Material and Technical Supply.

At the May Plenum of the CPSU Central Committee the report by Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee, especially sharply raised the problem of the preservation of grown products and elimination of losses during harvesting, procurements, transportation, storage and processing. "An efficient system of measures for the fight against losses and for a regular operation of procurement, transport and trade organizations must be thought out and realized in every rayon, in every oblast and in every republic," Comrade L. I. Brezhnev pointed out.

To preserve products without losses, to deliver high-quality products to consumers and to utilize everything that has been produced by the intensive labor of rural workers--this is the meaning of the plenum's requirements. These requirements fully apply to consumer cooperatives, in whose organizations and enterprises there are significant shortcomings.

The development of the material and technical base of the procurements of fruits and vegetables made it possible to attain an increase in the volumes of procurement, storage and processing of and trade in these products and created conditions for the performance of work on a reduction of losses and an improvement in quality at all the stages of their movement from the field to the consumer. In the last 5 years the losses of potatoes, fruits and vegetables in the procurement organizations of consumer cooperatives have decreased by 45 percent, comprising 0.26 percent of the total volume of their procurement in 1981. Taking into consideration, however, that these losses in monetary terms amount to sizable sums, cooperative organizations face complex and responsible tasks for their full elimination.

The Board of Tsentrosoyuz has developed an overall program for a significant reduction in the losses and an efficient utilization of potatoes, vegetables, fruits and other agricultural products and for a fundamental improvement in the organization of the procurements, transportation, storage and processing of these products. Along with organizational measures and an increase in the responsibility of managers and specialists at all levels special attention is paid to the further development of the material and technical base of procurements and to the introduction of modern techniques of acceptance, storage and processing. Assignments for the introduction of advanced methods of storage of potatoes, fruits and vegetables under conditions of active ventilation and artificial cooling and in a controlled gas medium with the use of containers have been presented to all unions of consumer societies for the period until 1990.

As is well known, a high quality of agricultural products is ensured by a good organization of the work of all links, beginning with the observance of the necessary agrotechnical and zootechnical requirements during growing and ending with procurements and sale. Procurements, transportation, storage, processing and sale are precisely the intermediary links where after production and harvesting losses of products occur. Therefore, procurement workers should have close contacts with agricultural bodies, kolkhozes and sovkhozes--partners in forward contracts--and at all their centers, bases and enterprises ensure laboratory and commodity expert control over the quality of products shipped and placed for prolonged storage.

However, it should be admitted that these requirements have not become a law for many procurement organizations. Often procurement workers ship ungraded products without commodity processing to consumers, which leads to their big losses. During the current year procurement workers in Uzbekistan, the Ukraine and individual oblasts in the RSFSR shipped low-quality vegetables. Tsentrosoyuz was forced to strictly punish the culprits.

The Board of Tsentrosoyuz demanded that unions of consumer cooperatives concentrate the attention of all procurement workers on an improvement in the quality of purchased and shipped agricultural products, primarily potatoes, fruits, vegetables, watermelons and muskmelons.

In accordance with the decisions of the May (1982) Plenum of the CPSU Central Committee procurement organizations will have to complete during the 12th Five-Year Plan the transition to the acceptance of products directly on kolkhozes and sovkhozes and the transportation of potatoes, vegetables, fruits, berries and grapes with their own vehicles from farms. This measure is directed toward a fuller utilization of grown agricultural products and, what is very important, toward an improvement in their quality.

Right now procurement offices of consumer cooperatives expand the acceptance of potatoes and fruit and vegetable products directly on farms. A total of 950,000 tons were accepted in 1981. During the current year this acceptance is to be increased to 1.2 or 1.5 million tons and in 1985, to 3 million tons.

In order to fully change over to the acceptance of all fruit and vegetable products and potatoes directly on farms, it is necessary to right now begin the implementation of a number of generally not simple measures.

First of all, acceptance and transfer centers with the organization at them of the grading and packaging of products, as well as their mechanized loading on the transport facilities of the procurement organization, should be established on farms. If it is taken into consideration that in the zone of procurements of consumer cooperatives one farm (kolkhoz or sovkhoz) accounts for the sale of an average of 250 to 280 tons of potatoes and up to 300 tons of vegetables, it will become clear that the concentration of the production of these products becomes a vital and urgent task. It is also necessary to more persistently strive for the allocation of a sufficient number of motor transport facilities, including, without fail, specialized transport facilities, to procurement organizations. At the same time, it is necessary to find ways of economically interesting procurement organizations, not only rural farms, in an expansion of direct acceptance at places of production. This is the concern of central bodies.

The problem of preservation of products, primarily perishable ones, during their transportation requires special attention.

Consumer cooperatives are the main suppliers of potatoes, vegetables, fruits and melon crops to Moscow, Leningrad, industrial centers, regions in the north, in Siberia and in the Far East and to other consumers.

The average annual delivery of these products to all Union and republic stocks totals about 7 million tons.

Big losses occur during the transportation of these products. The shortage of a refrigerating pool, low speeds of freight delivery and lack of responsibility on the part of transport bodies for freight are the main reasons for this.

A large number of perishable products are still conveyed by nonspecialized transport facilities, which leads to losses of products and to a deterioration in their quality. For example, owing to the lack of supply of isothermic transport facilities, muskmelons from the Uzbek SSR are shipped mainly in simple railroad cars and arrive in Moscow with standard fruits comprising 80 to 82 percent, whereas, when shipped in refrigerator railroad cars, 95 to 96 percent. Significant quantities of perishable fruits and vegetables are transported in closed rolling stock.

In connection with the fact that the railroad does not offer closed rolling stock unions of consumer cooperatives in the Ukrainian SSR ship about 400,000 tons, or more than one-half of the potatoes supplied to the republic's industrial centers, in open-type (gondola) railroad cars. This leads to big losses and often to a complete destruction of products.

The speeds of transportation of fruit and vegetable freight in railroad cars are only 12 to 15 km per hour. However, even these speeds are often disrupted. In June-August 1981 a total of 486 (about 25 percent) of the 1,975 railroad cars dispatched with products arrived in Moscow from 1 to 8 days late and in 1982 railroad cars with cucumbers, tomatoes, early potatoes and other products arrived with a delay of 1 to 4 days in delivery.

The temperature regime is often disrupted during conveyance by isothermic transport facilities.

Fruit and vegetable products are transported in vessels not very adapted for these purposes and refrigerator river vessels have not been built to this day.

The refrigerator trucks allocated to the organizations of consumer cooperatives are totally insufficient. At present 3,223 refrigerator trucks are available, while 15,000 are needed.

Owing to the shortage of refrigerator trucks, during the fall and winter period difficulties arise with the delivery of potatoes and fruit and vegetable products to the trade network, in connection with which, even if free capacities of specialized storage facilities are available, part of these products are stored in adapted warehouses and cellars at stores and public dining enterprises.

These examples are cited in order to once again stress the urgent need to speed up the elimination of the lag in the development of refrigerator motor, river and railroad transport.

Every procurement season is a new serious test for procurement workers. In order to successfully withstand it, especially in the face of the new requirements advanced by the May (1982) Plenum of the CPSU Central Committee and the food program, every procurement worker of consumer cooperatives must work with a full devotion of efforts, with initiative and with a sense of high responsibility for the job entrusted to him in order to make the biggest contribution to the accomplishment of the tasks indicated by our party--of meeting the needs of the Soviet people for food products as best as possible.

11,439
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CRIMEAN AGRICULTURAL ENTERPRISES DEVELOP EAST EUROPEAN TIES

Moscow PRAVDA in Russian 7 Feb 83 p 4

[Article by A. Bogma and V. Zhuravskiy (Crimean Oblast): "The Crimean Effect"]

[Text] The same parallels invisbly intersect the Crimea, the Upper Balkans and the Danube Valley. The same grasses and fruits ripen on their fields and in their orchards under the bright southern sun, the same expanses of amber and ruby cover the vineyards from horizon to horizon during the autumn.

The Crimean spectrum of agricultural crops coincides almost completely with that of the Balkan and Danube areas. Nature has taken care of this. But man has also left his mark . . . .

Socialism has reduced the distances between the Crimea, the Balkans and the Danube. Agricultural workers of the Soviet Union, Hungary, Bulgaria and other sister countries have common desires, concerns and interests. The experiences of some of them serve as a great assistance to others. Incidentally, about distances. In the city of Kechkemet which has taken shelter in the fertile central Danube lowlands, on an area near the old post office a signpost jutted up indicating the directions to the most important points of the country. Foreign flowers mingle in the national bouquet of names--Simferopol, which is 1,250 kilometers away . . . . In the oblast center of the Crimea, rubbing shoulders with Moscow Square and Kiev Street, there is Kechkemet Street.

Soviet and Hungarian cities called each other blood brothers 22 years ago. Oblasts originated whose centers are Crimea and Bach-Kishkunsk. From year to year the workers of the two oblasts establish deeper contacts in all spheres of social, economic and cultural life. At the present time the main and most effective form of their cooperation is direct ties among associations, enterprises, kolkhozes, cooperatives, sovkhozes and state farms.

The Kolkhoz imeni Zhdanov in Simferopol'skiy and the Bach-Kishkunsk cooperative imeni Lenin have been partners for a decade and a half. Both are multibranch enterprises that are highly profitable. Once every two years the kolkhoz and the cooperative conclude an agreement concerning friendship and cooperation. This business document envisions regular exchange of economic

information which pertains primarily to the introduction into production of the achievements of science and technology and the disclosure of the most promising strains and hybrids and innovations in breeding work. . . .It also includes socialist commitments made by the collectives. Their implementation is jointly controlled. The kolkhoz and the cooperative regularly exchange, on a basis that does not involve money, small delegations that are formed mainly of specialists. The trips are made towards autumn, when the results are being determined. The working plan of the kolkhoz delegation and also its report upon return are considered at a meeting of the bureau of the party raykom.

"The study and application of the experience of our sworn brothers here is a pivotal point of our cooperation," said the deputy chairman of the kolkhoz imeni Zhdanov, B. P. Belyy. "The direct ties that have been arranged make it possible for us to become quite familiar with the Hungarian practice and for them to become familiar with ours, and also to borrow what is useful, that is, one does not have anything the other does not have. In other words, the exchange is such that both sides profit."

The Kolkhoz imeni Zhdanov has borrowed from its Hungarian friends the technology for cultivating sunflower seeds and also corn for grain, raising onions and several other vegetables with minimal expenditures of manual labor, and the system of balanced production of feeds. The vegetable growers here have a saying: "If you water an onion you will sweat, if you cut it you will cry." The onion weeding season has now been excluded from the calendar: harmless herbicides cut the weeds at the root better than sharp choppers do. Because of taking advantage of the Hungarian experience, on 50 hectares of onions alone the kolkhoz saves 11,500 rubles a year. A significant effect has also been achieved by the cooperative imeni Lenin from introducing the Crimean experience in raising soybeans and feed sugar beets.

The Vinogradnyy Sovkhoz plant, which is not far from Simferopol, is rich and famous far beyond the peninsula. Its irreplaceable director, G. N. Avraamov, and a group of enthusiasts founded it on a desolate, unsuitable area of land a quarter of a century ago, and it has now become a large agro-industrial complex. Many foreign specialists visit this farm in order to familiarize themselves with intensive methods of production. Field workers and machine operators here raise an average of more than half a ton of wheat per hectare. One cannot take one's eyes off from the productive orchards. In three years the sovkhoz changed over to progressive vines that are acclimatized to Crimean conditions and they gather 100-120 quintals of grapes from the young vineyards. The winery processes more than a thousand tons during a season, and soon it will almost double its production. Using deductions from profit, the farm has constructed 2,680 residential buildings on the central farmstead as well as cultural-domestic and industrial facilities. Vinogradnyy is establishing friendship with the Bach-Kishkunsk Khel'vetsiya state farm.

"We, the Hungarians, the Bulgarians and our other sworn brothers," says G. N. Avraamov, "use a metaphor: precious grains of experience. We harvest this grain with the greatest of care, and heavy spikes grow from it. International social experience relieves the partners of searches for solutions that have already been found and warns them of possible mistakes."

Vinogradnyy workers have borrowed from their friends certain details in the system of labor organization. Moreover, Hungarian palmetto has found a place in their orchards and in the vineyards they have "the balaton design of supports" which makes it possible to increase the mechanization of the interrow cultivations. The Khel'vetsiya state farm has given the Crimean brothers technology for producing wines with less acidity. The Hungarians have brought a whole "basket of innovations" here. They especially liked the people's university of the sovkhoz plant with its agriculture, economics and vinoculture departments, the council for scientific organization of labor and the bureau of scientific and technical information.

The grain of Bulgarian experience has begun to produce vigorous shoots on Crimean soil. The Crimea and Rusnensk Okrug of Bulgaria declared themselves to be brothers at the end of the 1970's. The lines of direct communications were extended without any interference or delays.

Three years ago the first secretary of the Nizhnegorskiy party raykom, M. I. Radchenko, visited beyond the Danube. He liked much about the way the "brothers" dealt with the land. He asked about all the details and entered the information in a notebook. His peasant eyes noted that a wild variety of rape was growing on the field seed crop rotations there--oily and juicy, just like cabbage. The Rusnensk cooperators gave the guests a bag of seeds which was sent to the Kolkhoz imeni Voykov. There are now about a thousand hectares planted in this crop in the rayon. It has been given the name Rusenka after the brother okrug.

The chairman of the kolkhoz, Hero of Socialist Labor F. P. Sakun dotes on and praises the Bulgarian gift:

"If our rape produces 470 quintals of grain mass per hectare, Rusenka produces 600 and we harvest it 7-8 days early, lengthening the "belts" of the green conveyor and releasing the field for other crops of the crop rotation as early as the first ten days of April."

The sovkhoz plant imeni Chkalov in Bakhchisarayskiy Rayon "copied" from its Rusensk partner--the Yantra agrochemical combine. Then this service spread throughout Crimea.

"One must admit that previously we did not always have enough fertilizers," says the director of the sovkhoz plant Ya. P. Solun. "We applied them according to the principle: you don't spoil kasha with butter. Now we have a cartogram of the soil. We give each field only the chemical elements it needs. The consumption of fertilizers has decreased and the fertility has increased. The laboratory determines the optimal feed rations for the farms, exercises constant control over the seed and planting material, and regulates norms and time periods for irrigation . . . ."

The Chkalov workers also borrowed from the Bulgarians the technology for raising strawberries and the method of pruning intensive orchards. And they themselves, of course, "paid" with interest for this with their own experience.

Twenty-five leading kolkhozes and sovkhozes have arranged and are developing direct relations with related enterprises of Hungary and Bulgaria. This list must include 10 more agricultural scientific research institutions and enterprises of the processing and canning industry.

"The cooperation between Crimea and Bach-Kishkunsk Oblast and Rusnensk Okrug," said the first secretary of the Crimea obkom of the Communist Party of the Ukraine, V. S. Makarenko, in a conversation with us, "has become a vital concern of the entire oblast party organization. We consider it one of the responsible parts of our work and we devote primary significance to it. Carrying out the instructions of the 26th CPSU Congress, the obkom determined the policies for organizing direct ties among industrial and agricultural enterprises as well as the goals of receiving specialists and labor leaders and sending them abroad, and it developed measures that provide for attentive study and extensive dissemination of the useful Hungarian and Bulgarian experience. The bureau of rayon and city committees of the KPU and local party organizations similarly consider at their meetings the specific questions related to cooperation with their brothers, hear reports from managers of farms and enterprises concerning the introduction into production of the innovations that have been borrowed, and establish comprehensive plans for relations with related collectives. All these questions are always in the field of vision of the obkom. The effect from the direct ties is great--both economic and political. It is especially appreciable in agriculture. We consider it to be an important reserve in the matter of implementing the Food Program.

The brother enterprises study each other's experience in party leadership of agriculture and the introduction into production of the achievements of scientific and technical progress. Problems of the fraternal cooperation are constantly discussed on the pages of KRYMSKAYA PRAVDA, city and rayon newspapers, and also other means of mass information. On the initiative of the obkom in December of last year in Simferopol there was a scientific and practical conference on the questions of utilizing the experience of the friends, with Hungarian and Bulgarian specialists participating in its work.

Planning and depth, concreteness and expediency are becoming increasingly important in organizing direct ties. Party committees concentrate their attention on studying the advanced technologies applied by their brother workers in farming and animal husbandry and experience in the area of agrochemical service, feed production, rural construction, mechanization and automation of farms. The interests in the Crimea is evoked by the Hungarian practice of agro-industrial integration and the system of mutual relations of cooperatives with private subsidiary farms. An agreement has been reached concerning exchange of groups of production leaders and specialists for mutual training of partners in progressive methods and devices of labor.

The valuable grain of the experience of the brother enterprises is falling on fertile ground.

11772
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EFFECTIVE UTILIZATION OF EQUIPMENT SOUGHT IN RAPO PLANNING

Moscow SEL'SKAYA ZHIZN' in Russian 12 Feb 83 p 2

/Article by G. Krasnoperov, Mogilev Oblast: "A New Approach To the Work"/

/Text/ The farmers in Mogilevskiy Rayon are confirming their obligations in the form of work -- this year they are increasing sharply their contribution towards implementing the food program. In addition to preparing their seed and equipment for the sowing operations, they have also succeeded in carrying out a considerable portion of the work planned for the spring: during the autumn and on warm snowless days at the beginning of winter they applied organic and mineral fertilizers over vast areas. Great results are expected from this maneuver: 90 powerful T-150 tractors were connected up to wide-swath tows consisting of cultivators and containers with a raised capability for applying liquid complex fertilizers.

The best preparations for spring are not just the result of work carried out by the farmers, but rather they derive also from the increased level of responsibility for the crops displayed by workers attached to those organizations which provide services for the kolkhozes and sovkhozes.

"It must be confessed that formerly some of these organizations showed very little concern for the crops and at times they exacted maximum payments from the farms for minimal services" stated the chairman of the council for the rayon agroindustrial association Nikolay Fedorovich Kononov, "But we began to 'treat' them using economic methods. For example, we used two general indicators for the effectiveness of use of the rayon's machine-tractor pool: the value of the gross agricultural output produced per standard hectare and the yield of products per ruble of funds expended for the servicing of equipment."

The new conditions represent a new approach to the work. Earlier, when the mechanical workshops of raysel'khoztekhnika were provided with a plan for repair work in a cost expression, it turned out that the replacement of minor parts became nothing more than "technical maintenance."

Last year all of the points in the agreements concluded by raysel'khoztekhnika with the kolkhozes and sovkhozes for the servicing of the machine-tractor pool could be reduced essentially to one factor -- what could be done to raise the efficiency of the agricultural equipment?

By displaying creative activity, the raysel'khoztekhnika workers accomplished during a brief interval of time that which formerly took years to complete -- they eliminated the deficit in spare parts which prevailed throughout the rayon. This was achieved by improving the pre-repair status of the tractors and other machines and restoring worn out parts. And there was another factor -- tractors which had been written off were returned to raysel'khoz-tekhnika, dismantled and more than one half of the parts placed back in circulation.

"We attempt to have our own economic approaches employed by other partners of the farmers and livestock breeders" stated the chairman of the RAPO /rayon agroindustrial council/, as he shared his plans. "The RAPO Council considers improvements in its economic work to be a most important reserve for raising the efficiency of agricultural production. Despite the fact that the association is in its developmental stage, it is still not starting from zero. The fact of the matter is that sixteen inter-farm enterprises have been operating successfully in the rayon for several years now, with their work being directed by the rayon council -- the prototype of the present RAPO Council. Thus, we possess some experience. A primary consideration is the fact that considerable work has been carried out in connection with improving the economies of weak farms."

Nikolay Fedorovich is holding down the right job. An economist by education (he completed the program at the Belorussian Agricultural Academy), he also studied agricultural economics and obtained practical experience: he worked for 7 years as a chief economist and 4 years as chairman of the Avangard Kolkhoz in this same Mogilevskiy Rayon. The farm headed by him obtained 41 quintals of grain and 250 quintals of potatoes per hectare and its annual milk yield per cow was 3,500 kg of milk. Its overall production profitability reached 50 percent.

Today the chairman of the RAPO Council dreams of raising to the same heights the economies of other farms in the rayon. This is not an easy task: more than one half of the kolkhozes still operate at a loss. But there is a basis for optimism. As a result of measures undertaken several years ago by the rayon party committee and the rayon executive committee, the status of some weak farms has improved.

Formerly, the Parizhskaya Kommuna Kolkhoz operated at a low : everything that it produced it consumed itself. But 4 years ago, upon the recommendation of the rayon party committee, Eduard Stepanovich Kurakin was selected to serve as the kolkhoz chairman. He is an experienced administrator: he was a rank and file kolkhoz member and a brigade leader. When because of his organizational capabilities he was promoted to the rayon reserve of leaders, he was already serving as the chief agronomist at a sovkhoz and simultaneously as a supernumerary instructor for the rayon party committee. He arrived at the Parizhskaya Kommuna Kolkhoz accompanied by six experienced specialists who had obtained experience at economically strong farms. The rayon party committee and the rayon executive committee furnished assistance to the kolkhoz in the construction of housing and roads. The kolkhoz has changed and today it is ranked as an average farm. But even more important is the fact that the kolkhoz personnel have changed: they have roused themselves and acquired new

strengths and are performing their tasks in an efficient manner. Moreover, they have suddenly discovered that the work holds a great attraction for them.

Even more striking changes have been observed at the Krasnaya Zvezda Kolkhoz, where if you please the land is the worst in the rayon in terms of natural fertility. Nina Makarovna Vergey, who upon the recommendation of the rayon party committee was selected to serve as the kolkhoz chairman, is an agronomist and Candidate of Agricultural Sciences. She taught the kolkhoz members how to transform poor land into rich soil. Even last year, which was a difficult one, they succeeded in obtaining 36 quintals of field crop products per hectare in a conversion for feed units. It was not too long ago that the farm was unable to feed its own livestock (and at the time it had fewer animals than it now does) and yet today it is feeding to full satisfaction 3,000 non-calving young cows which are being raised to meet the rayon's requirements. Last year the kolkhoz over-fulfilled all of its state plans.

This increase in agricultural output is today a phenomenon that is typical of some other economically weak farms. And this has promoted improvements in agricultural production throughout the rayon as a whole. Compared to the average annual level for the 10th Five-Year Plan, more output was obtained during the first 2 years of this current five-year plan: grain -- by 42 percent, potatoes -- by 15, vegetables -- by 87, flax fibre -- by 31, fruit -- by 67 and meat -- by 27 percent. More eggs and wool have also been produced. There was only a slight shortfall in milk production and yet last year's plans for the production and sale of this product were fulfilled.

Nevertheless, many problems still remain with regard to overcoming the backwardness of kolkhozes and sovkhozes. Nor are these problems always economic in nature. At times, the task of overcoming backwardness involves having to overcome the harmful psychology of those who always wish "to be shown how."

Leonid Sergeyevich Moiseyev, the director of the Borok Sovkhoz, summarizes the results of his own 3 years of work:

"We slowly began to realize improvements: compared to 1980 when the sovkhoz's losses amounted to 800,000 rubles, last year they decreased to 200,000 rubles. Even more important is the fact that in 1982 the farm fulfilled its plans for supplying the state with all types of products with the exception of potatoes. But we would have achieved even more, were it not for Apekunov."

At the kolkhoz, V. Apekunov operates a powerful T-150 tractor. And yet this huge machine, because of this disorderly machine operator -- who is drunk just about every other day -- lay idle last year for more than 100 working days. According to the director, there are still many such irresponsible workers. The young leader would like to see them become efficient production workers. But Leonid Sergeyevich does not know how to accomplish this.

"It seems that we have found the means for solving this vital problem, one that concerns some other farms as well" reflected the 1st secretary of the rayon party committee Vasiliy Prokof'yevich Martsinkevich, "I have in mind group contracts. This same Krasnaya Zvezda Kolkhoz overcame its backwardness

mainly owing to the extensive introduction of this progressive form for organizing labor. It is known that the same funds invested in production produce different returns when different attitudes are displayed with regard to their use. But despite the fact that they were theoretically aware of this from the start, many leaders did not trouble themselves to search for more efficient variants for management. Today they are becoming more familiar with the economic nature of the problem. Yes and how could it be otherwise! The state has furnished the kolkhozes and sovkhozes with tremendous material assistance by establishing raised procurement prices for the field crop husbandry and animal husbandry products sold by them. These additional funds must be used as intended -- for improving the economies.

"Yes, the chief concern at the present time is that of learning how to evaluate any economic solution from an economic standpoint" such is the opinion of Fedor Pavlovich Lipkin and Arkadiy Semenovich Yakhnovich, members of the RAPO Council.

They are quite familiar with the problem: formerly they themselves had to implement improvements in backward farms which they had "inherited." Today the Geroy Truda Kolkhoz where Fedor Pavlovich served as chairman and the Veynyanskiy Hothouse Combine Sovkhoz where Arkadiy Semenovich served as the director, are numbered among the best farms in the oblast.

Listening to them and to other members of the RAPO Council, one becomes convinced that this competent organ of the rayon agroindustiral complex is fully capable of performing great work. But for the time being it still requires assistance. February is at hand and it is still not known exactly how the association's funds are to be formed. A thought occurs: a single engineering service should be created for the rayon in the interest of implementing decisive improvements in the servicing and operation of equipment. But how should engineers belonging to different departments be grouped or classified in a single collective -- again nobody knows. The rayon is presently waiting for the republic and union organs to provide answers for other important problems, the solutions for which will affect the operational efficiency of the RAPO Council.

7026
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TILLING AND CROPPING TECHNOLOGY

SELECTION OF HARVESTING TECHNIQUES FOR GRAIN DISCUSSED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 26 Jan 83 p 1

[Article by B. Nureshev, winner of USSR State Prize, machine operator of the Urumkayskiy Sovkhoz (Shchuchinskiy Rayon, Kokchetav Oblast): "How the Hectare Operates"]

[Excerpts] It is quiet today on our virgin land fields covered with powdered snow. And it seemed that just yesterday it looked like a large battlefield. Day and night, without sleep or rest, with the self-sacrifice of soldiers the people fought for the grain. I cannot discuss the harvest in any other way. Victory does not come more easily on a virgin field than it does on a field of battle.

Everything related to the labor of the farmer is filled with deep meaning for me. Take the grain. The word itself, short though large in meaning, has subsumed both centuries of mankind's experience and the concept of the difficult work of the plowman and the planter.

"Bread is the staff of life," "If there is bread there will be song." Thus popular wisdom defines the role and position of grain in the life and affairs of man. Grain is a measure of our wealth. This is why our duty and responsibility to the people for the work of our hands are immeasureably great.

I can say that my neighbors have no cause to be ashamed. During last year which was dry they poured 18,700 tons of good and valuable grain into the state grain bins--a 1.t-fold increase over the plan. During two years of the five-year plan they filfilled almost a three-year assignment.

They can say: "The people are lucky." To this I respond: "People are lucky when they bring luck to themselves." This is confirmed by the following example.

After the March (1965) Plenum of the CPSU Central Committee the average annual grain yield on our sovkhoz increased more than 2-fold. And the area planted in spike crops, because of the transfer of the land to other farms, was reduced by half. So the major factor in our success is the constant increase in productivity.

It was said at the 26th Party Congress that the Kazakhstan billion poods of grain has become customary. Under the Tenth Five-Year Plan the average annual grain production in the republic amounted to 27.5 million tons. A task has been set to increase the gross yield to 31.5 million tons by 1990. Grain growers of the republic are capable of reaching this goal. As we know, during favorable years Kazakhstan has produced up to 34 million tons of grain.

As before, the greatest increase in grain production should be produced by farms of the virgin land oblasts. And mainly through increasing the productivity of the fields. Virgin land farmers have been given the task of increasing the grain yield per hectare to 20 quintals. We do have reserves for increasing the productivity of the grain fields. Today farming on virgin land is based on a powerful material and technical base, the achievements of science and advanced practice, and the mastery of the grain growers. But the main thing, of course, depends on us, the farmers, on our attitude toward our work. This was again confirmed by last year with its unusually difficult weather conditions.

At the May (1982) Plenum of the CPSU Central Committee grain production was named as the key factor in implementing the country's Food Program. We understand perfectly well that in the future the advancement of agriculture the main load will be placed on us, the farmers. And that is the way it should be. Kazakhstan is playing a considerably larger role in solving these problems and, hence, also our oblast, rayon and sovkhoz. In this connection I should like to mention something else. Many virgin land farms have achieved such productivity that to increase it further involves ever increasing proportional expenditures of labor and money. And this depends to an ever increasing degree not only on the farmer, but on all of his partners in the agro-industrial complex.

Their assistance is immense. But the shortcomings are also significant. Let us take such interrelational problems as optimal time periods and quality of agricultural campaigns. Everyone knows that this factor directly influences the productivity of each hectare. It is painful to see how we continue to lose the crop that has been raised with such difficulty. There are many reasons. I shall discuss some of them. The metal drum pickups do not provide for high-quality picking up of the swathes. It is necessary to reduce the speed of the combine. And still many spikes remain on the field. And there are not enough of the linen pickups which have earned the recognition of the machine operators. Our farm, for example, has none at all.

The next issue. Swathes that are doubled or paired make it possible to approximately double the rates of threshing and considerably reduce losses of grain. With a productivity of 17 quintals and more the Niva cannot handle such swathes. At normal speeds there are large losses of grain, and at reduced speeds the work rates drop and the deadlines are missed. And still it is not worthwhile to work in the grain fields when it is raining because the grain losses increase sharply. We say that after a rain grain runs like water through your fingers. The time has come to solve these problems more efficiently.

There are many other crucial issues. The creation of councils of agro-industrial associations at all levels should contribute to solving them comprehensively, to increasing the motivation of all workers to achieve good final results of labor, and to increase the efficiency not only of agricultural production, but also of related branches.

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